SAMSUNG ELECTRONICS

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SERVICE MANUAL DVD-907K/808K/807K/DVD-9901A

SAMSUNG

DIGITAL VERSATILE DISC PLAYER

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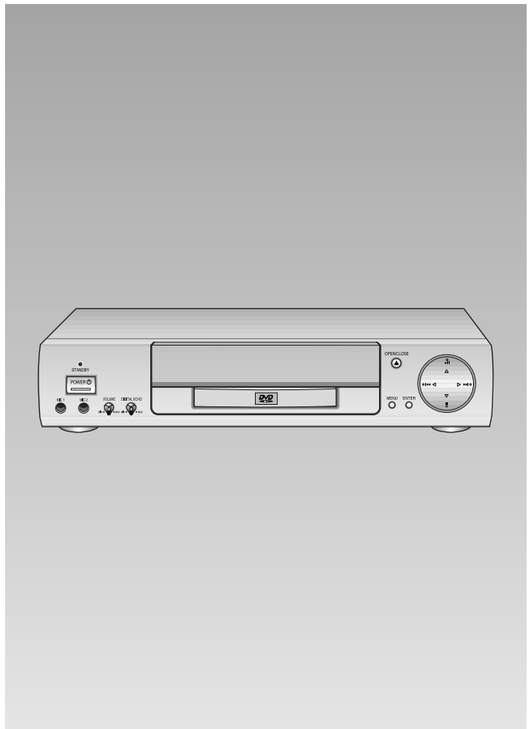
SERVICE Manual

DIGITAL VERSATILE DISC PLAYER



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1. Precautions

1-1 Safety Precautions

1. Before returning an instrument to the customer, always make a safety check of the entire instrument, including, but not limited to, the following items:

(1) Be sure that no built-in protective devices are defective or have been defeated during servicing. (1)Protective shields are provided to protect both the technician and the customer. Correctly replace all missing protective shields, including any remove for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning.

(2) Be sure that there are no cabinet openings throught which adults or children might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, excessively wide cabinet ventilation slots, and an improperly fitted and/or incorrectly secured cabinet back cover.

(3) Leakage Current Hot Check-With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use a isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards institute(ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1270 (40.7). With the instrument's AC switch first in the ON position and then in the OFF position, measure from a known earth ground (metal waterpipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinets, screwheads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis.

Any current measured must not exceed 0.5 millamp. Reverse the instrument power cord plug in the outlet and repeat the test. See Figure 1-1.

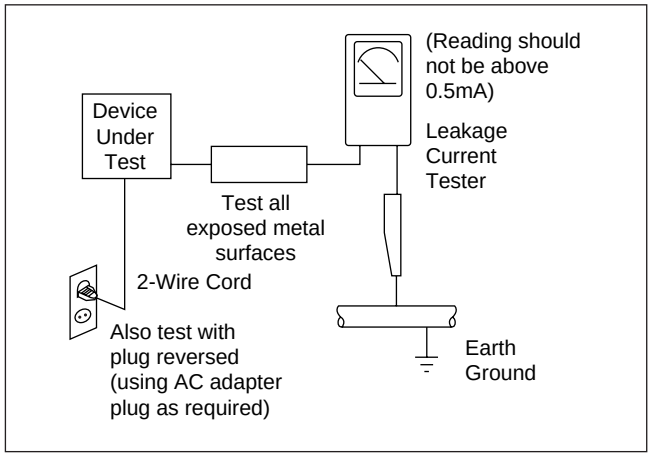

(Reading should not be above 0.5mA)
Device Under Test
Leakage Current Tester
Test all exposed metal surfaces
2-Wire Cord
Also test with plug reversed (using AC adapter plug as required)
Earth Ground

Fig. 1-1 AC Leakage Test

Any measurements not within the limits specified herein indicate a potential shock hazard that must be ellminated before returning the instrument to the customer.

(4) Insulation Resistance Test Cold Check-(1) Unplug the power supply cord and connect a jumper wire between the two prongs of the plug. (2) Turn on the power switch of the instrument. (3) Measure the resistance with an ohmmeter between the jumpered AC plug and all exposed metallic cabinet parts on the instrument, such as screwheads, antenna, control shafts, handle brackets, etc. When an exposed metallic part has a return path to the chassis, the reading should be between 1 and 5.2 megohm. When there is no return path to the chassis, the reading must be infinite. If the reading is not within the limits specified, there is the possibility of a shock hazard, and the instrument must be repared and rechecked before it is returned to the customer. See figure 1-2.

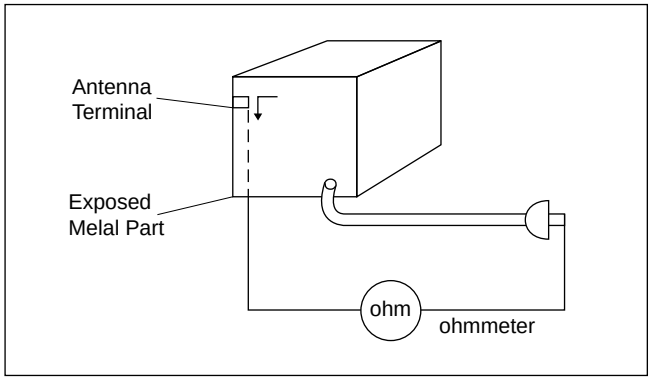


Fig.1-2 Insulation Resistance Test

2. Read and comply with all caution and safety related notes non or inside the cabinet, or on the chassis.

3. Design Afteration Warning-Do not alter of add to the mechanical or electrical design of this instrument. Design alterations and additions, including but not limited to, circuit modifications and the addition of items such as auxiliary audio output connections, might alter the safety characteristics of this instrument and create a hazard to the user. Any design alterations or additions will make you, the servicer, responsible for personal injury or property damage resulting therefrom.

4. Observe original lead dress. Take extra care to assure correct lead dress in the following areas:(1) near sharp edges, (2) near thermally hot parts (be sure that leads and components do not touch thermally hot parts), (3) the AC supply, (4) high voltage, and (5) antenna wiring. Always inspect in all areas for pinched, out-of-place, or frayed wiring, Do not change spacing between a componect and the printed-circuit board. Check the AC power cord for damage.

5. Components, parts, and/or wiring that appear to have overheated or that are otherwise damaged should be replaced with components, parts and/or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

6. Product Safety Notice-Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by shading, an (⋇)or a (⚠)on schematisc and parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might created shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1-2 Servicing Precautions

CAUTION: Before servicing Instruments covered by this service manual and its supplements, read and follow the Safety Precautions section of this manual.

Note: If unforseen circument create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions. Remember: Safety First.

1-2-1 General Servicing Precautions

(1) a. Always unplug the instrument's AC power cord from the AC power source before (1) removing or reinstalling any component, circuit board, module or any other instrument assembly, (2) disconnecting any instrument electrical plug or other electrical connection, (3) connecting a test substitute in parallel with an electrolytic capacitor in the instrument.

b. Do not defeat any plug/socker B+ voltage interlocks with which instruments covered by this service manual might be equipped.

c. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.

d. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

Note: Refer to the Safety Precautions section ground lead last.

(2) The service precautions are indicated or printed on the cabinet, chassis or components. When servicing, follow the printed or indicated service precautions and service materials.

(3) The components used in the unit have a specified flame resistance and dielectric strength. When replacing components, use components which have the same retings. Components identified by shading, by(⚹) or by (⚠) in the circuit diagram are important for safety or for the characteristics of the unit. Always replace them with the exact replacement components.

(4) An insulation tube or tape is sometimes used and some components are raised above the printed wiling board for safety. The internal wiring is sometimes clamped to prevent contact with heating components. Install such elements as they were.

(5) After servicing, always check that the removed screws, corponents, and wiring have been installed correctly and that the portion around the serviced part has not been damaged and so on. Further, check the insulation between the blades of the attachment plug and accessible conductive parts.

1-2-2 Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power ON. Connect the insulation resistance meter (500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts(see note) should be more than 1 Megohm.

Note: Accesible conductive parts include metal panels, input terminals, earphone jacks, etc.

1-3 ESD Precautions

Electrostatically Sensitive Devices (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity.
Such components commonly are called Electro statically Sensitive Devices(ESD). Examples of typical ESD devices are integrated circuits and some fieldeffect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

(1) Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic aharge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

(2) After removing an electrical assembly equipped with ESD devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

(3) Use only a grounded-tip soldering iron to solder or unsolder ESD devices.

(4) Use ouly an anti-static solder removal devices. Some solder removal devices not classified as “anti-static” can generate electrical charges sufficient to damage ESD devices.

(5) Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damge ESD devices.

(6) Do not remove a replacement ESD device from its protective package until immediately before your are ready to install it.(Most replacement ESD devices are packaged with leads electrically shorted together by condutive foam, aluminum foil or comparable conductive materials).

(7) Immediately before removing the protective materials from the leads of a replacement ESD device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

(8) Minimize bodily motions when handling unpackaged replacement ESD devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electrictity suffcient to damage an ESD device).

1-4 Handling the optical pick-up

* The laser diode in the optical pick up may suffer electrostatic breakdown because of potential static electricity from clothing and your body.

The following method is recommended.

(1) Place a conductive sheet on the work bench (The black sheet used for wrapping repair parts.)
(2) Place the set on the conductive sheet so that the chassis is grounded to the sheet.
(3) Place your hands on the conductive sheet(This gives them the same ground as the sheet.)
(4) Romove the optical pick up block
(5) Perform work on top of the conductive sheet. Be careful not to let your clothes or any other static sources to touch the unit.

* Be sure to put on a wrist strap grounded to the sheet.
* Be sure to lay a conductive sheet made of copper etc. Which is grounded to the table.

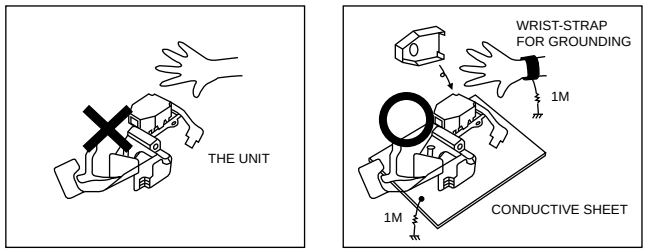


Fig.1-3

(6) Short the short terminal on the PCB, which is inside the Pick-Up ASS'Y, before replacing the Pick-Up. (The short terminal is shorted when the Pick-Up Ass'y is being lifted or moved.)
(7) After replacing the Pick-up, open the short terminal on the PCB.

1-5 Pick-up disassembly and ressembly

1-5-1 Disassembly

1) Remove the power cable.
2) Switch LD SW3 on deck PCB to ‘S’ before removing the FPC
   (inserted into Main PCB CN1. See Fig 1-4.)
3) Disassemble the deck.
4) Disassemble the deck PCB.
5) Replace the Pick-up.

1-5-2 Assembly

1) Replace the Pick-up.
2) Assemble the deck PCB.
3) Reassemble the deck.
4) Switch LD SW3 on deck PCB to ‘O’ and insert FPC into Main PCB CN1 (See Fig 1-4).

Note : If the assembly and disassembly are not done in correct sequence, the Pick-up may be damaged.

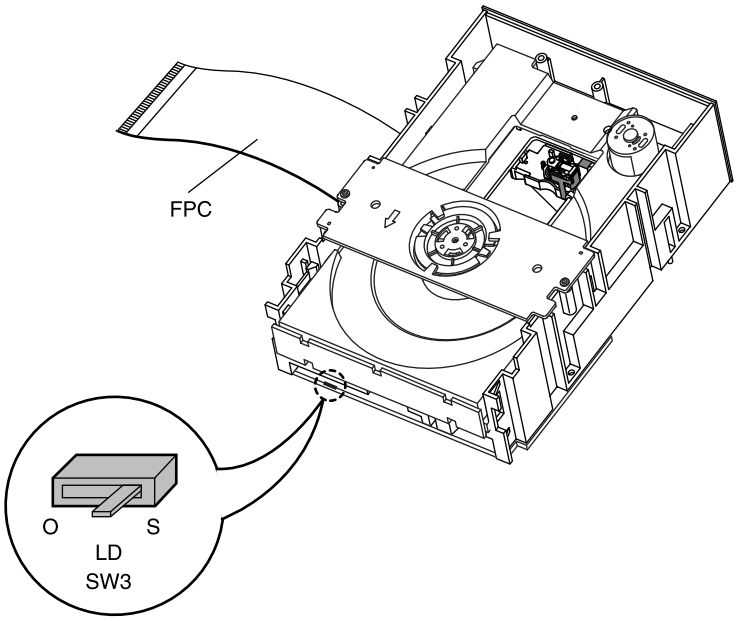


Fig. 1-4

2. Reference Information

2-1 Semiconductor Base Diagram

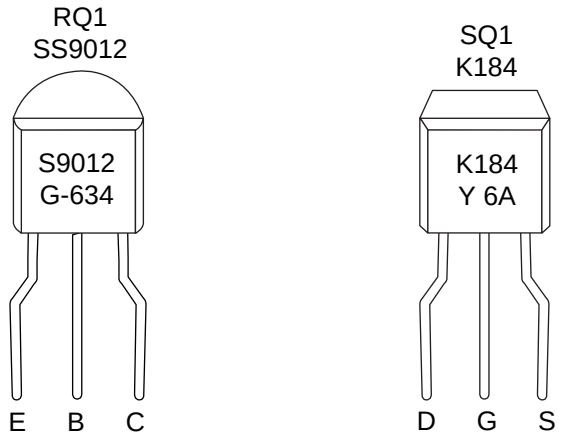


Fig. 2-1

2-2 Chip Replacement

2-2-1 Precaution for the chip Replacement

1) Do not touch the part body directly with the soldering iron. ICs, especially TSOP, are easily damaged by heat.
2) Use care regarding soldering iron tip and avoid repidly heating parts. Some parts can be damaged by sudden heating. Preheat the part at about 100°… for several minutes before installing it.
3) Use soldering tip temperature of about 240°… or larger parts, use a slightly higher temperature (about 280°…).
4) The thin(0.3mm)solder for miniature parts does not contain adequate flux. Supplementary flux is thus needed in most cases.
5) Use care not to damage the circuit pattern, especially when removing.
6) Because of the many pins, cleanliness of the pattern is extremely important after removing the IC.
7) Use care to avoid solder bridges. Remove any that occurs.
8) Position the part carefully. They will also affect the soldering operation. Be very precise in positioning the IC. Soldering opposite pins first holds the IC in place and makes soldering the other pins easier.
9) Do not reuse removed parts.
10) Check for solder joints, especially miniature parts with small lead.
11) A defective trimming resistor cannot be adjusted externally. Replace with an ordjnary variable resistor.
12) It is important to inspect the work with a magnifier. Check after installing (cold solder joints, etc.).

2-2-2 Tools for the Chip Replacement

The tools for the chip replacement are as follows:

1) Thin tip type soldering iron
2) Small flat-blade tip-type soldering iron
3) Special desoldering tip iron
4) Airblower unit
5) Flat Package Pick-up
6) Flux can be cleaned by water
7) 0.3mm thin solder can be cleaned by water
8) Desoldering wire
9) Tweezers

2-2-3 Chip Resistors and Chip Capacitors

-- Kind of the Part

The kind of chip resistors and chip capacitors as follows:d

1) Think Film Chip Resistors
2) Carbon Film Chip Resistors
3) Metal Film Chip Resistors
4) Chip Ceramic Capacitors
5) Chip Trimming Resistors

-- Removing the Part

1) Using two soldering irons:
   Use thin tip soldering irons.
① Use soldering tip temperature of about 280°….
② Simultaneously heat both ends of the part.
③ While heating, grasp the part with the tips of the
④ soldering irons and remove it.
   Use desoldering wire to completely remove the old
⑤ solder from the part location of the board.
   A clean pattern for installing the new part is very
⑥ important.

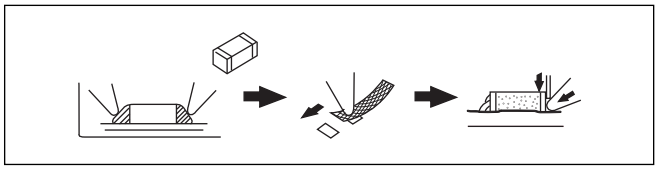


Fig 2-2

-- Installing the Part

1) Use desoldering wire to remove the previous solder.
2) Clean the location.
3) Apply flux.
4) Position the IC and solder two pins at opposite sides.
5) Use a sharp tipped soldering iron and carefully solder each Pin.(After gaining experience, a thicker tip can be used for better work efficiency.)
6) Remove any solder bridges with desoldering wire.
7) Inspect the work with a magnifier.

2-2-4 Diodes and Tr.

-- Kind of the Part
The kind of the part is as follows:
1) Chip VRs.
2) Chip Trimmer Capacitors
3) Diode
4) Transistors

-- Removing the Part
1) Using two soldering irons:
① Use small flat-blade tips.
② Heat the leads of the part simultaneously.
③ When the solder melts, grasp and remove the part with the soldering iron tips.
④ Remove the old solder with desoldering wire.

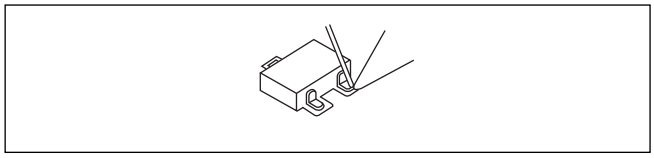


Fig 2-3

-- Installing the Part
1) Clean the area where the new part is to be mounted.
2) Apply flux.
3) Set part correctly into position, prevent it from shifting.
4) Use sharp soldering iron tip. Bring close to the part contact without actually touching it. Melt thin solder between the tip and part si that it flows into the part contact.

2-2-5 Chip ICs

-- The kind of the Chip ICs
The kind of the chip ICs are as follows:
1) SOP(Small Outline Package)IC
2) SSOP(Shrink Small Outline Package)IC
3) VSOP(Very Small Outline Package)IC
4) QFP(Quad Flat Package)IC
5) VQFP(Very Quad Flat Package)IC
6) PLCC(Plastic Leaded Chip Carrier)IC
7) TSOP(Thin Small Outline Package)IC

-- Removing the Part
1) Using special desoldering iron:
① Selet the tip according to the size and shape of the IC.
② "Tin" the tip with a small amount of the IC leads.
③ Set the tip squarely over the IC leads.
④ When the solder melts, carefully twist the iron.
⑤ Raise and remove the IC.

2) Using shaped airblower unit:
① Select the correct nozzle.
② Select the temperature and airblow(suggested: temperature:7, airblow:4)
③ Engage the IC removing tool.
④ Use the airblow to preheat the IC for about 5 seconds, then heat with the nozzle until the IC remover lifts the part from the board.

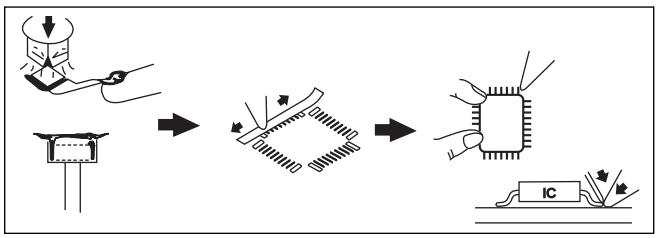


Fig 2-4

-- Installing the Part
1) Use desoldering wire to remove the previous solder.
2) Clean the location.
3) Apply flux.
4) Position the IC and solder two pins at opposite sides.
5) Use a sharp tipped soldering iron and carefully sol der each Pin.(After gaining experience, a thicker tip can be used for better work efficiency.)
6) Remove any solder bridges with desoldering wire.
7) Inspect the work with a magnifier.

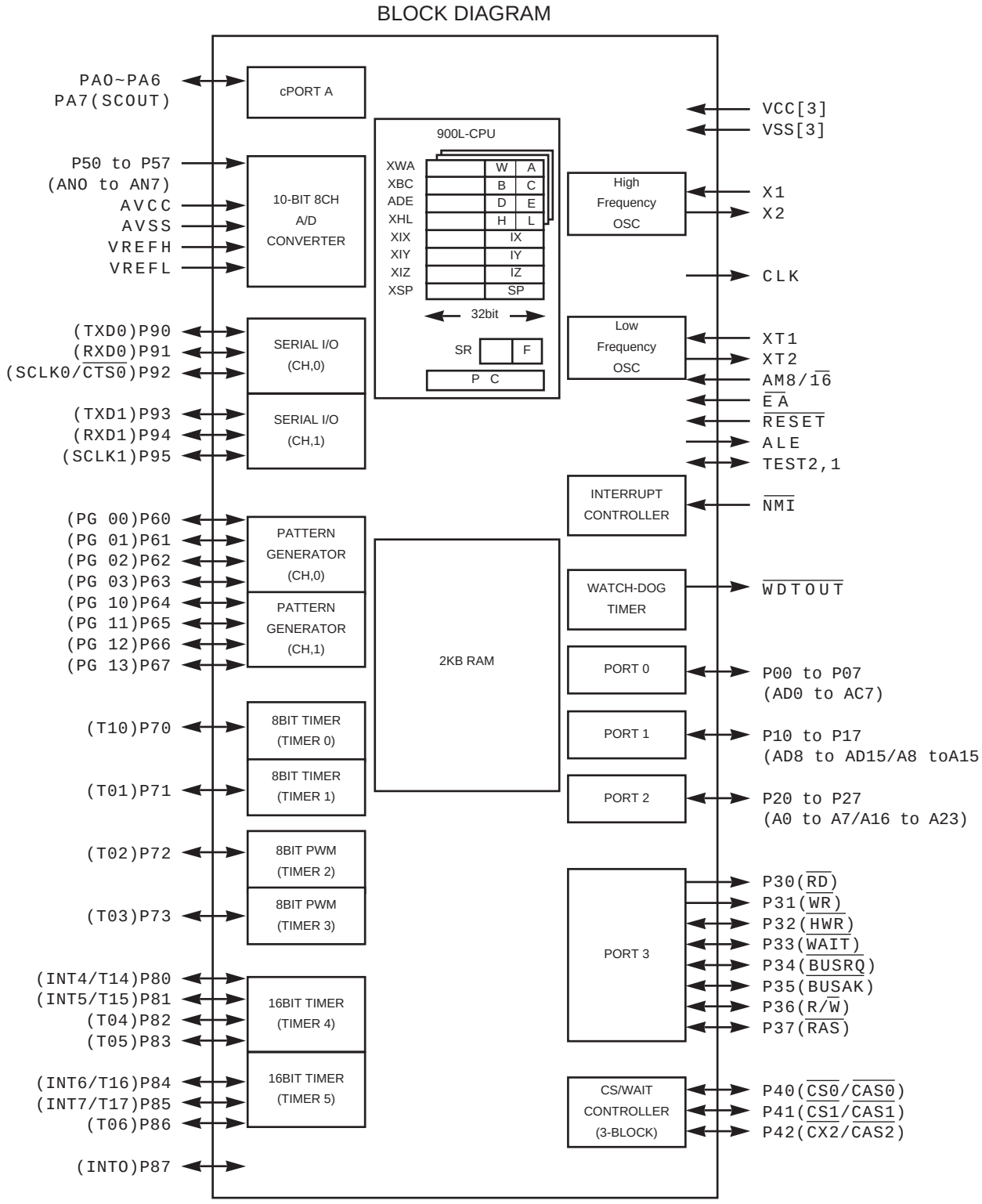
MEMO

6. IC Descriptions

List	SCHEMATIC	LOCATION	DEVICE	FUNCTION
6-1	15-1-1 Micom	MIC1	TMP93CS41	MAIN MICOM
6-2		MIC2	Am27C040	4Megabit(512K × 8-bit) CMOS EPROM
6-3		MIC3	KM681000	128K×8 bit CMOS SRAM
6-4	15-1-2 Servo	RIC1	TA1236F	RF IC
6-5		RIC2	TA1253F	DPD IC
6-6		SIC5	BA6840	3-PHASE MOTOR DRIVER
6-7		SIC7	TC9420F	SERVO & CD DATA PROCESSOR
6-8	15-1-3 Data Processor	DIC1	TC90A19F	DVD DATA PROCESSOR
6-9		DIC2	KM48C512	512K×8 bit CMOS DRAM
6-10	15-1-4 A/V Decoder	BIC1	ZiVA D6-L	AUDIO/VIDEO DECODER
6-11		BIC2	AM27C4096	EPROM
6-12		BIC3,BIC4,BIC5,BIC6,BIC7	KM416C254DJ	CMOS DRAM
6-13	15-1-5 Audio	AIC1	AK4324	DIGITAL-TO ANALOG CONVERTER
6-14		AIC2	PCM1720	DIGITAL-TO ANALOG CONVERTER
6-15		AIC3	PCM1723	DIGITAL-TO ANALOG CONVERTER WITH PLL
6-16	15-1-6 Video	VIC1	SAA7128	DIGITAL VIDEO ENCODER
6-17	15-2 Front Board	FIC1	LC86P6232	FRONT MICOM
6-18	15-4 Karaoke Board	KIC1	ES56033	ECHO SOUND PROCESSOR

6-1 MAIN MICOM (MIC1 : TMP93CS41)

BLOCK DIAGRAM



PIN ASSIGNMENT

PIN ASSIGNMENT

PIN		I/O	NAME	FUNCTION
61	WDTO	I/O		
62	Vss		VSS	GND(0V)
63	Vcc		VCC	+5V
64	A16	O	A16	Address Bus 16
65	A17	O	A17	Address Bus 17
66	A18	O	A18	Address Bus 18
67	A19	O	A19	Address Bus 19
68	A20	O	A20	Address Bus 20
69	A21	O	A21	Address Bus 21
70	A22	O	A22	Address Bus 22
71	A23	O	A23	Address Bus 23
72	P30	O	/RD	Strobe for Reading External Momory
73	P31	O	/WR	Strobe for Writing Data AD0 to AD7
74	P32	O	ML0/DIF0	Audio DAC Data Latch 0 /AKM4324 Control("L"=16/24bit, "H"=20bit)
75	P33	I	WAIT	Request CPU Bus Wait
76	P34	I	/BUSRQ	Bus Request
77	P35	O	/BUSAK	Bus Acknowledge
78	P36	O	ED_K	EEPROM Trans. Clock(I2S)
79	P37	O	ED_T	EEPROM Trans. Data(I2S)
80	P40	O	/CS0	Chip Select 0
81	P41	O	/CS1	Chip Select 1
82	P42	O	/CS2	Chip Select 2
83	P60	O	DVD_SEL	DVD/CD Mode Control(DVD="Low")
84	P61	O	OPEN	Door Open Motor Control
85	P62	O	CLOSE	Door Close Motor Control
86	P63	O	S/D_SEL	Single/Dual Disc Select(Single="Low")
87	P64	O	SDA	Video Encoder Trans. Data(I²C)
88	P65	O	SCL	Video Encoder Trans. Clock(I²C)
89	P66	O	BASS	Bass Redirection Control("L"=SW On, "H"=SW Off)
90	P67	O	SLEDGS	Sled Gain Select

PIN		I/O	NAME	FUNCTION
91	Vss		VSS	GND
92	P50	I	FEI	Focus Error Input
93	P51	I		
94	P52	I	SPFG	Spindle FG Input
95	P53	I	/SECAM	SECAM="H"
96	P54	I	/PAL	PAL ="H"
97	P55	I	/NTSC	NTSC="H"
98	P56	I	OP-SW	Door Open SW
99	P57	I	CL-SW	Door Close SW
100	VREFH	I	VREFH	Reference Voltage Input to A/DC(Hi)-

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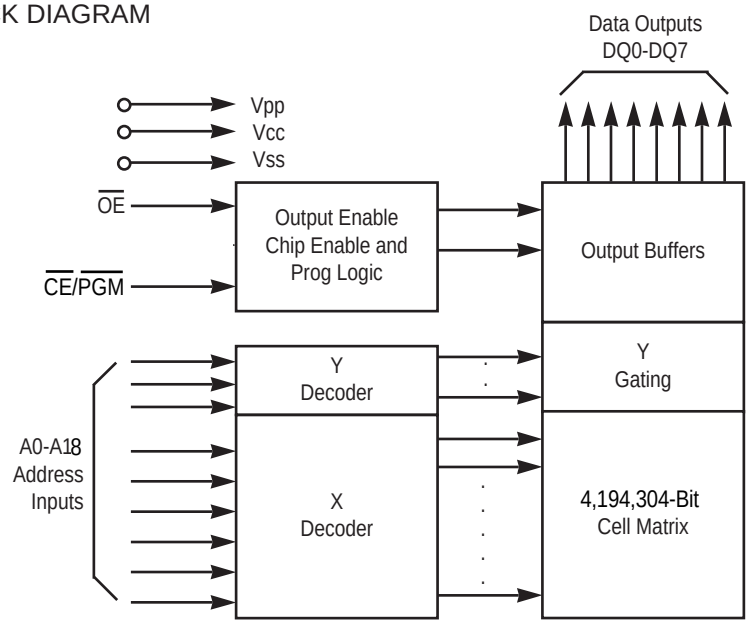
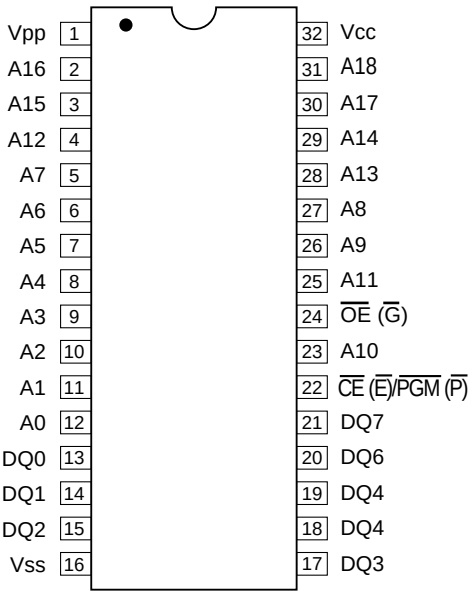


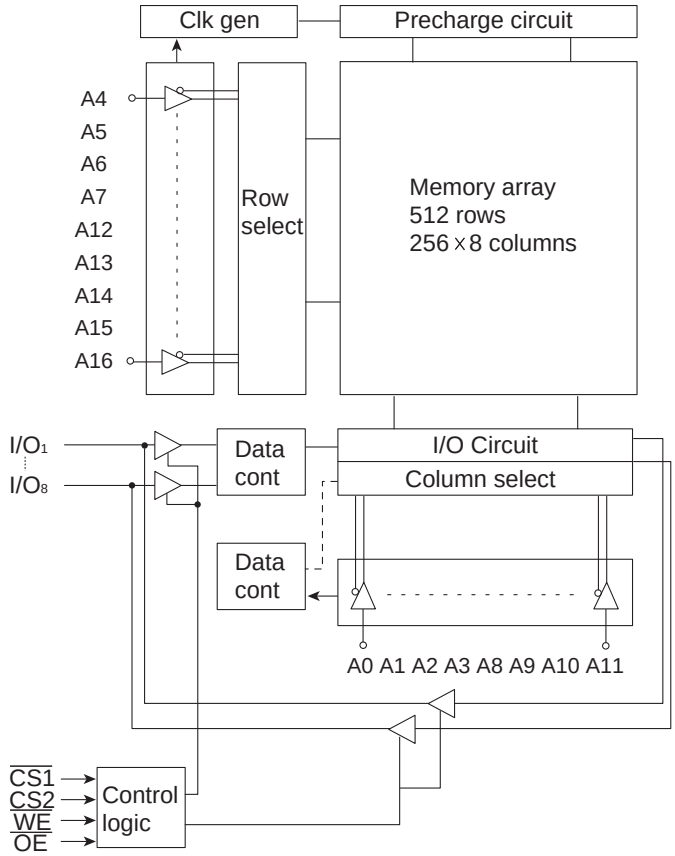
TOP VIEW



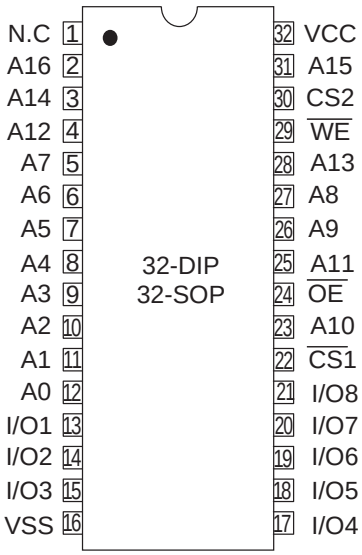
PIN ASSIGNMENT

NAME	FUNCTION
A0-A18	Address Inputs
$\overline{CE}$ ($\overline{E}$)/$\overline{PGM}$ ($\overline{P}$)	Chip Enable/Program Enable Input
DQ0-DQ7	Data Input/Outputs
$\overline{OE}$ ($\overline{G}$)	Output Enable Input
$\overline{PGM}$ ($\overline{P}$)	Program Enable Input
Vcc	Vcc Syply Voltage
Vpp	Program Voltage Input
Vss	Ground

BLOCK DIAGRAM



TOP VIEW



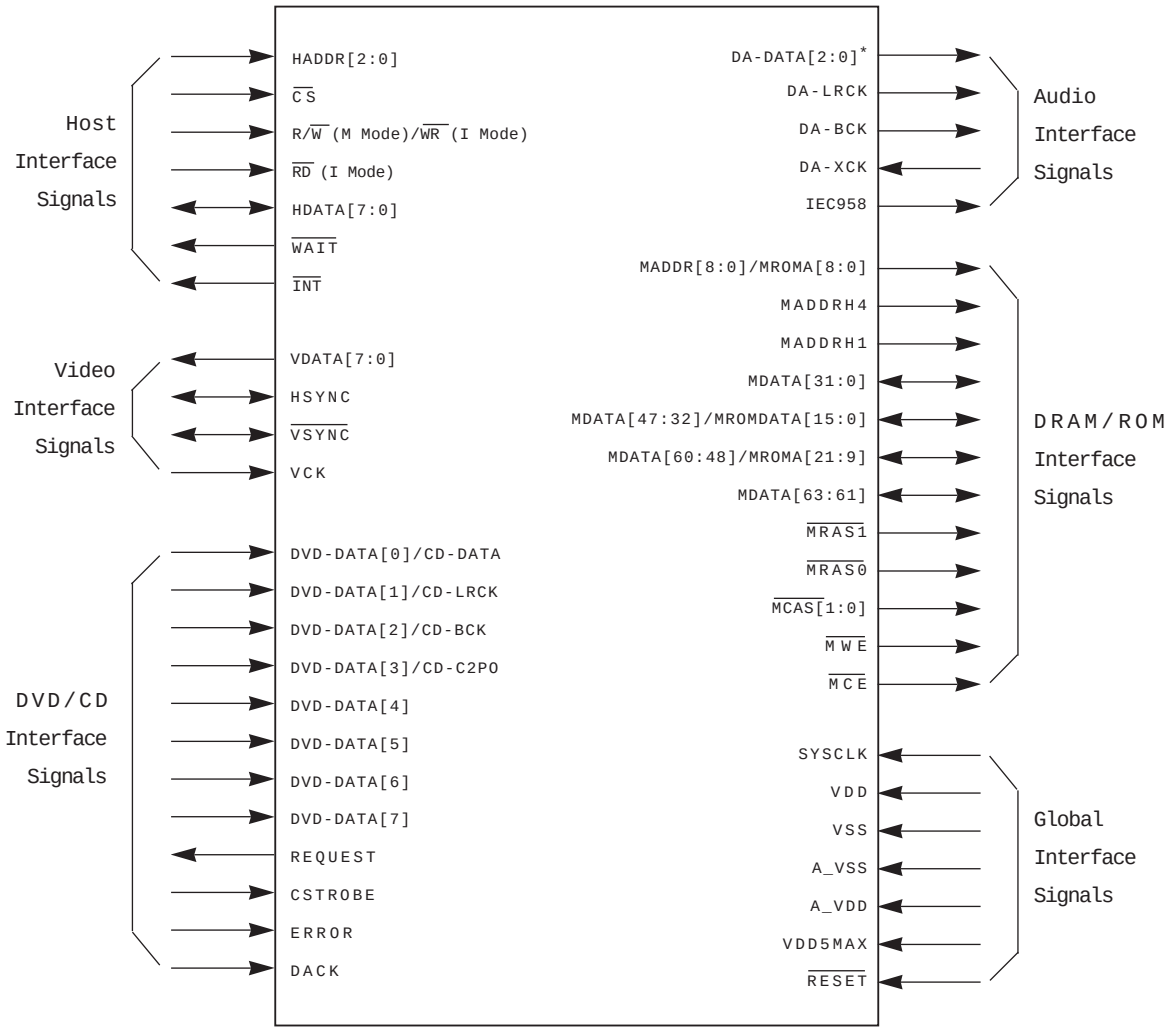
PIN ASSIGNMENT

NAME	FUNCTION
$\overline{CS_1}$, CS_2	Chip Select Inputs
$\overline{OE}$	Output Enable Input
$\overline{WE}$	Write Enable Input
A_0 ~ A_{16}	Address Inputs
I/O_1 ~ I/O_8	Data Inputs/Outputs
Vcc	Power
Vss	Ground
N.C	No Connection

6-4 RF IC (RIC1 ; TA1236F)

BLOCK DIAGRAM

LOGIC DIAGRAM



6-5 DPD IC (RIC2 ; TA1253F)

PIN ASSIGNMENT

PIN	NAME	FUNCTION
1	AGND	Ground
2	BIN1	Four division detector B inpt
3	N.C.	No connection
4	VREF	Reference voltage input
5	CIN1	Four division detector C input
6	N.C.	No connection
7	IREF	Current source setting current input for phase difference current conversion
8	DIN1	Four division detector D input
9	DSEL	Phase difference signal off-set compensation polarity selection input
10	PDFIL1	Phase difference current voltage time constant setting external capacitor
11	PDFIL2	Phase difference current voltage time constant setting external capacitor
12	DVCC	Power (+5V) input
13	DGND	Grond
14	TEOUT	Tracking error signal ouput
15	DEFECT	Mute control input
16	TEST2	For test
17	BDDC	BD channel HPF time constant setting external capacitor
18	TEST1	For test
19	ACDC	AC channel HPF time constant Setting external capacitor
20	BACTL	Tracking error balance control input
21	DPCTL	Phase difference signal off-set compensation control input
22	N.C.	No Connection
23	AIN1	Four division detector A input
24	AVCC	Power (+5V) input

6-6 3-PHASE MOTOR DRIVER (SIC5 ; BA6840 BFP)

BLOCK DIAGRAM

PIN ASSIGNMENT

Pin	NAME	FUNCTION
FIN	GND	Ground pin
3	A_3	Output pin
4	A_2	Output pin
5	Rnl	Current detector output pin
6	A_1	Output pin
7	GND	Ground pin
9	H_1+	Hall signal input pin
10	H_1-	Hall signal input pin
13	H_2+	Hall signal input pin
14	H_2-	Hall signal input pin
15	H_3+	Hall signal input pin
16	H_3-	Hall signal input pin
17	V_H	Hall bias pin
20	C_{NF}	Capacitor for phase compensation connection pin

Pin	NAME	FUNCTION
21	E_{CR}	Standard output current control pin
22	E_C	Output current control pin
23	ST/SP	Start/stop switch pin
24	REV	Reverse pin
25	V_{cc}	Power supply pin
26	V_M	Motor power supply pin

6-7 SERVO & CD DATA PROCESSOR (SIC7 ; TC9420F)

BLOCK DIAGRAM

PIN ASSIGNMENT

PIN ASSIGNMENT

PIN	NAME	FUNCTION
66	IO2(DMOP)	Wide use I/O port
67	IO2(DMON)	Wide use I/O port
68	/DMOUT	Mode setting to output binary PWM signals of field equalizer from IO0 and IO1 terminals and of disc equalizer from IO2 and IO3 terminals
69	/CKSE	X¡ta l selection
70	/DACT	DAC test mode
71	TESIN	Test input (external VCO clock input)
72	TESIO1	Test I/O
73	V_{SS}	Digital ground
74	PXI	DPS system clock oscillation circuit input
75	PXO	DPS system clock oscillation circuit output
76	V_{DD}	Digital + power supply
77	XV_{SS}	Ground for system clock oscillation circuit
78	XI	System clock oscillation circuit input
79	XO	System clock oscillation circuit output
80	XV_{DD}	+ power supply for system clock oscillation circuit
81	DVDO	D/A converting section power supply
82	RO	R channel data forward rotation output
83	DV_{SS}	D/A converting section ground
84	DVR	D/A converting section reference voltage
85	LO	L channel data forward rotation output
86	DV_{DD}	D/A converting section power supply
87	TEST1	Test mode terminal
88	TEST2	Test mode terminal
89	TEST3	Test mode terminal
90	BUS0	Data I/O (for microcomputer interface)

PIN	NAME	FUNCTION
91	BUS1	Data I/O (for microcomputer interface)
92	BUS2	Data I/O (for microcomputer interface)
93	BUS3	Data I/O (for microcomputer interface)
94	V_{DD}	Digital + power supply
95	V_{SS}	Digital ground
96	BUCK	Clock input for microcomputer interface
97	/CCE	Chip enable signal input for microcomputer interface
98	TEST4	Test mode terminal
99	/TSMOD	Local test mode selection
100	/RST	Reset signal input

6-8 DVD DATA PROCESSOR (DIC1 ; TC90A19F)

BLOCK DIAGRAM

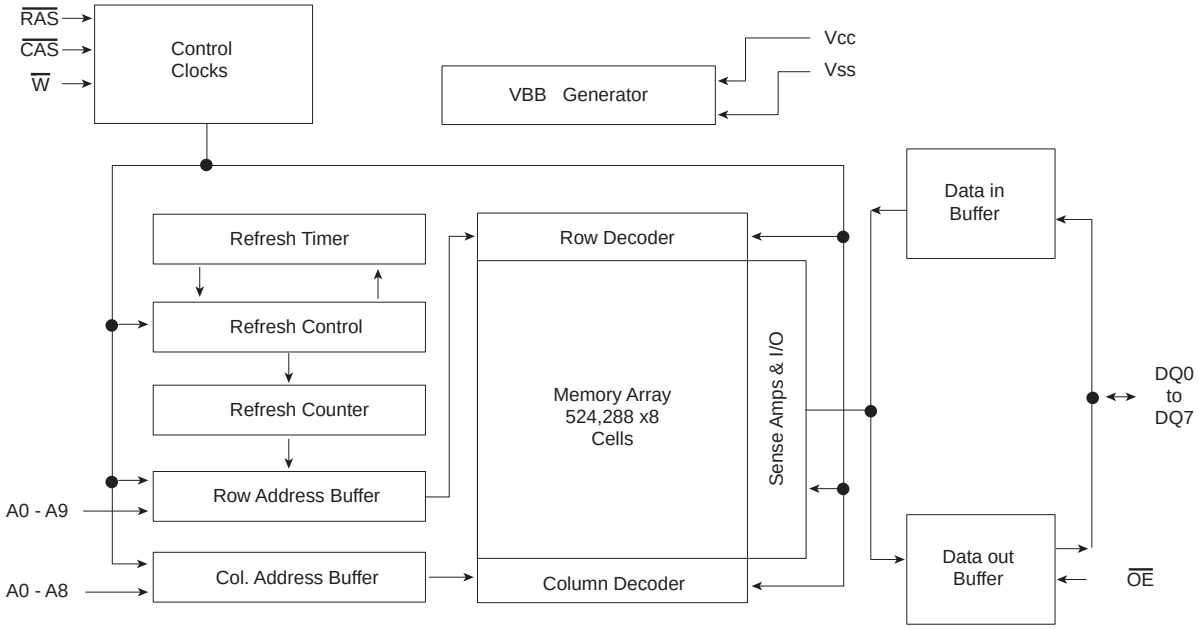
PIN ASSIGNMENT

PIN ASSIGNMENT

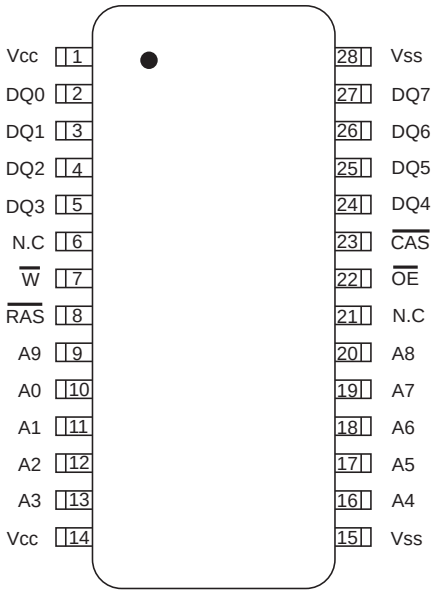
PIN	NAME	FUNCTION
66	MA4	External RAM address bus output
67	MA3	External RAM address bus output
68	MA2	External RAM address bus output
69	MA1	External RAM address bus output
70	MA0	External RAM address bus output
71	DV_{SS2}	Digital ground
72	DV_{DD2}	Digital power supply
73	MD7	External RAM data bus I/O
74	MD6	External RAM data bus I/O
75	MD5	External RAM data bus I/O
76	MD4	External RAM data bus I/O
77	MD3	External RAM data bus I/O
78	MD2	External RAM data bus I/O
79	MD1	External RAM data bus I/O
80	MD0	External RAM data bus I/O
81	SD7	MPEG data output
82	SD6	MPEG data output
83	SD5	MPEG data output
84	SD4	MPEG data output
85	DV_{SS1}	Digital ground
86	DV_{DD1}	Digital power supply
87	SD3	MPEG data output
88	SD2	MPEG data output
89	SD1	MPEG data output
90	SD0	MPEG data output

PIN	NAME	FUNCTION
91	SERR	MPEG data reliability flag output (data error:L)
92	SBGN	MPEG output secter synchronous signal output (secter top:L)
93	SENB	MPEG data effective flag output (effective:L)
94	SDCK	MPEG data transfer clock output
95	DV_{SS1}	Digital ground
96	SREQ	MPEG data request flag input(request:L)
97	RSTN	Hard reset input (reset:L)
98	DV_{DD1}	Digital power supply
99	STDA	Operation monitor data output (Output is carried out in synchronization with the falling edge of SDCK)
100	STCK	Operation monitor synchronous signal output (data top bit:L)

BLOCK DIAGRAM



TOP VIEW

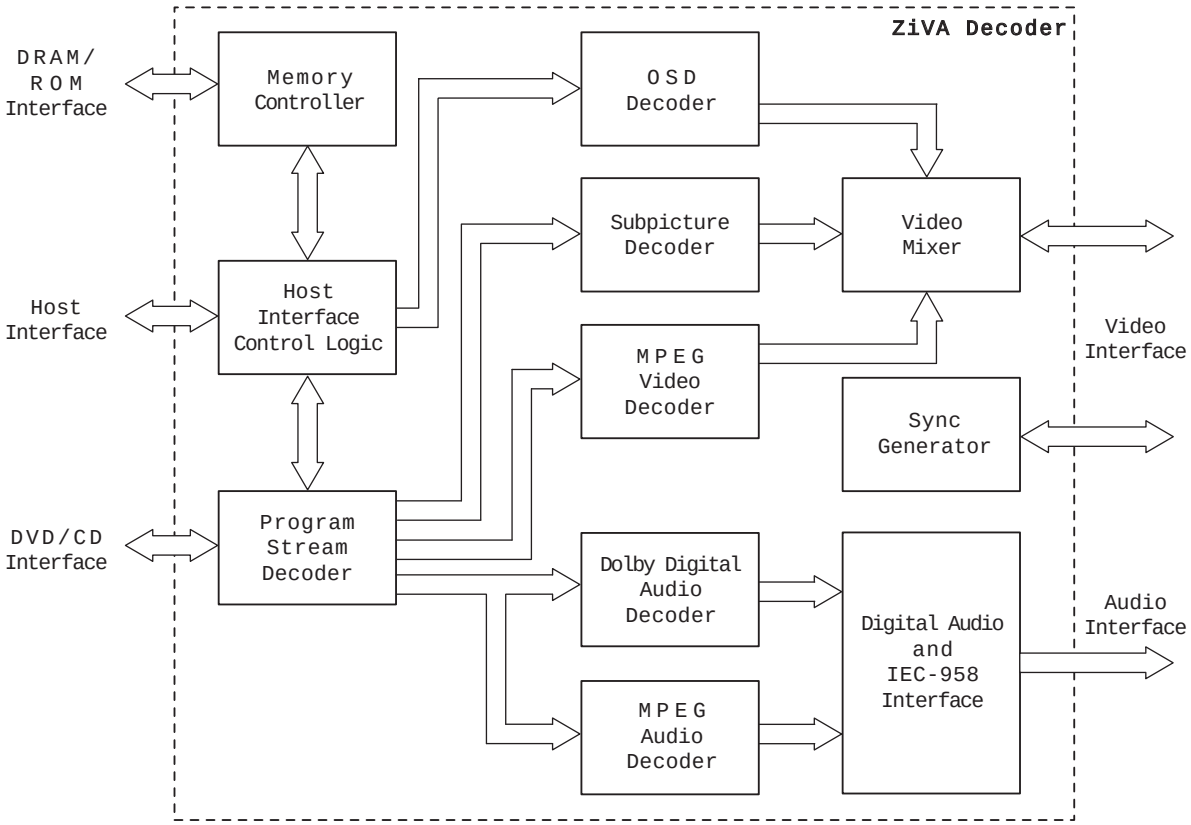


PIN ASSIGNMENT

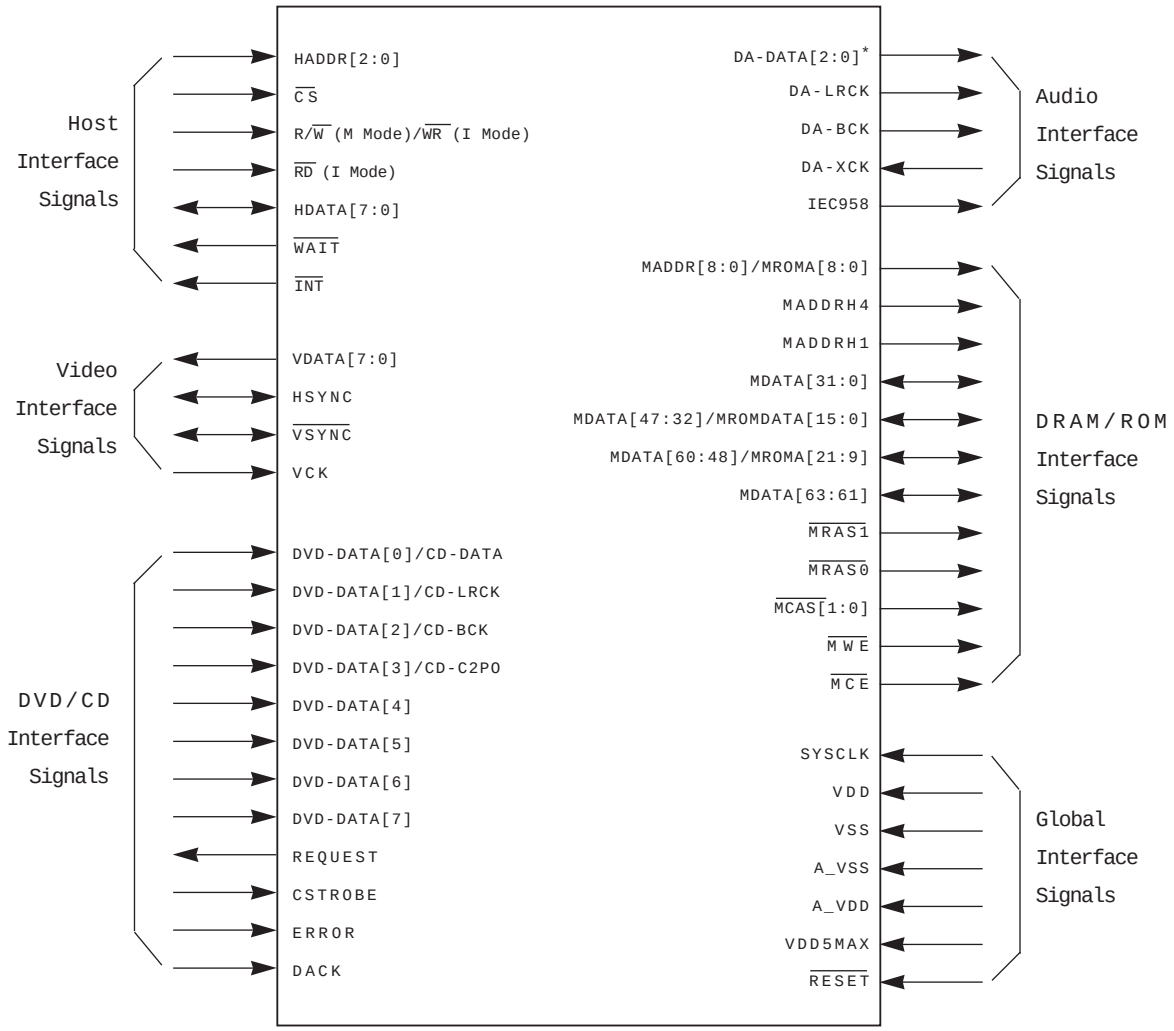
NAME	FUNCTION
A0 ~ A9	Address Input
DQ0 ~ 7	Data In/Out
Vss	Ground
$\overline{RAS}$	Row Address Strobe
$\overline{CAS}$	Column Address Strobe
$\overline{W}$	Read/Write Input
$\overline{OE}$	Data Output Enable
Vcc	Power(+5V)
	Power(+3.3V)
N.C	No Connection

6-10 AUDIO/VIDEO DECODER (BIC1 ; ZiVA D6-L)

BLOCK DIAGRAM



LOGIC DIAGRAM



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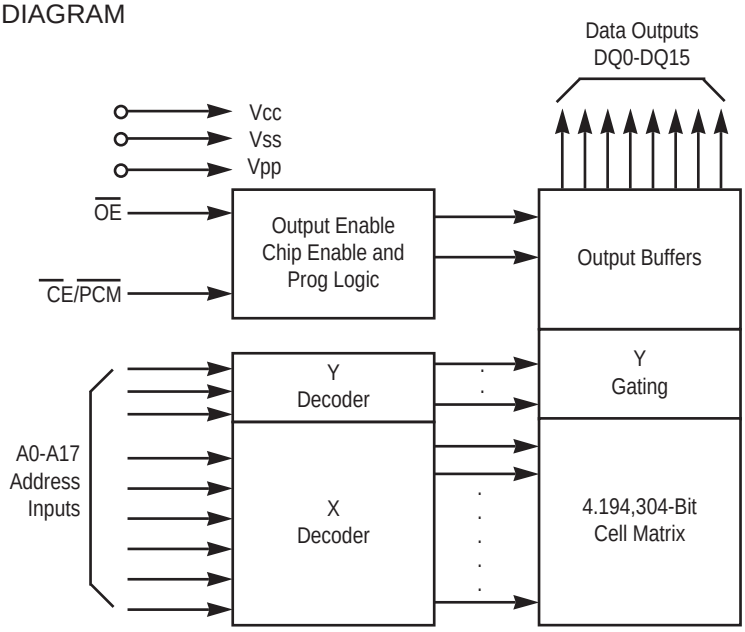
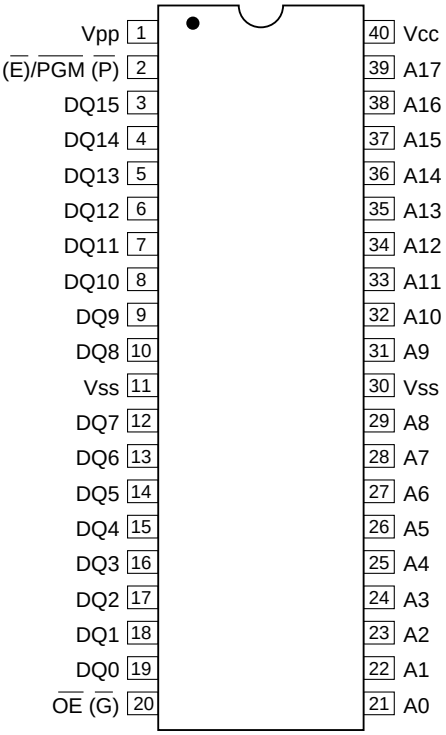


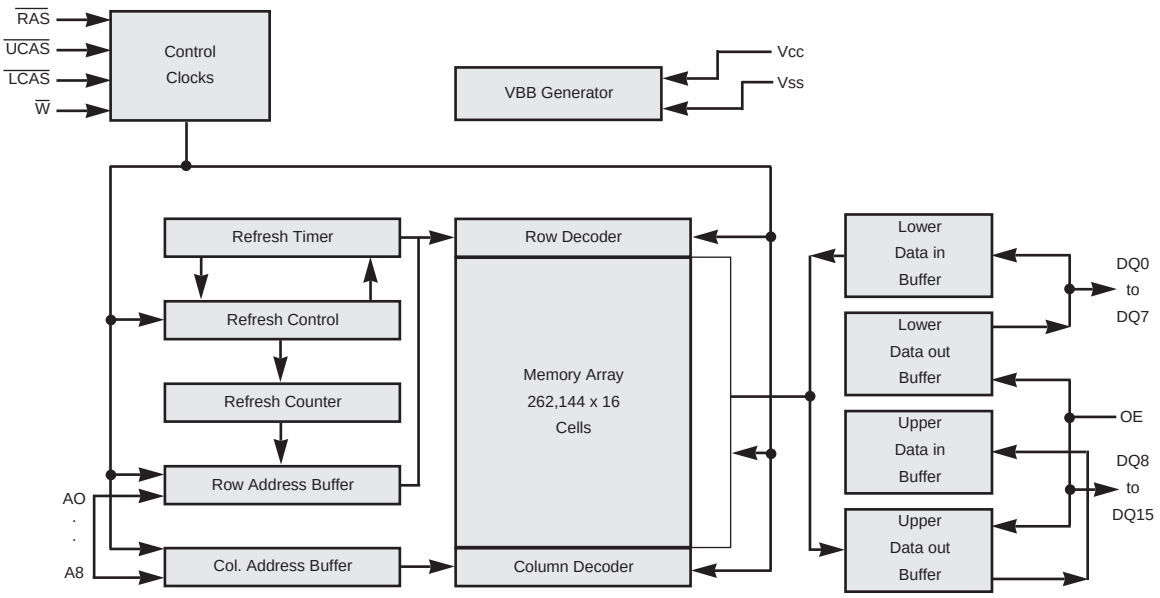
TOP VIEW



PIN ASSIGNMENT

NAME	FUNCTION
A0-A17	Address Inputs
CE (E)/PGM (P)	Chip Enable Input
DQ0-DQ15	Data External Connection
DU	No External Connection
NC	No internal Connection
OE (G)	Output Enable Input
Vcc	Vcc Syply Voltage
Vpp	Program Voltage Input
Vss	Ground

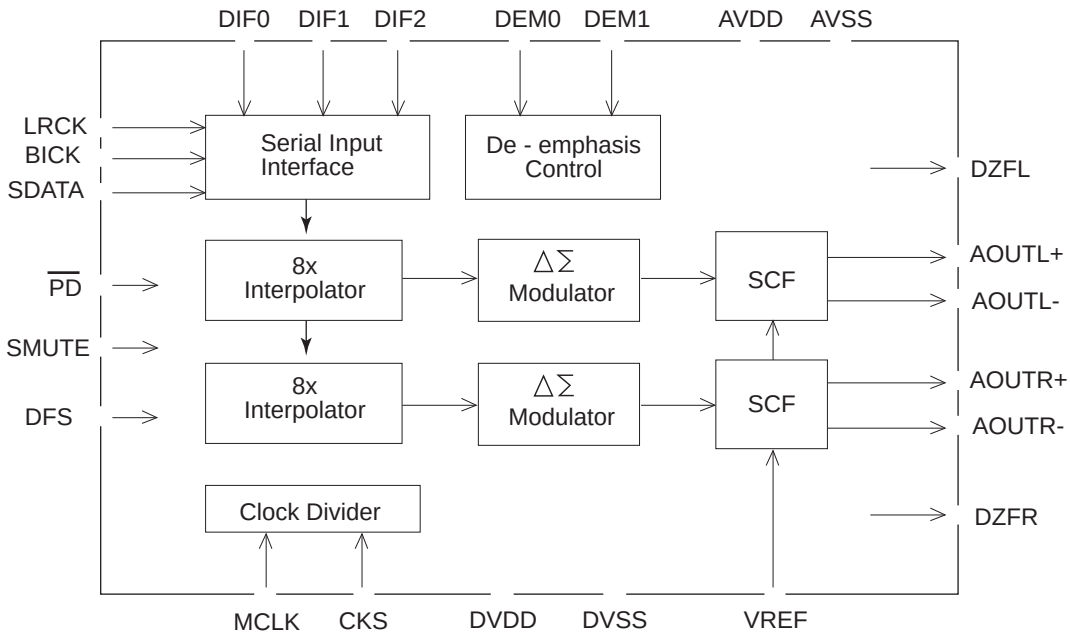
BLOCK DIAGRAM



PIN ASSIGNMENT

NAME	FUNCTION
A0-A8	Address Inputs
DQ0-15	Data in/Out
VSS	Ground
$\overline{RAS}$	Row Address Strobe
$\overline{UCAS}$	Upper Column Address Strobe
$\overline{LCAS}$	Lower Column Address Strobe
$\overline{W}$	Read/Write Input
$\overline{OE}$	Data Output Enable
V_{CC}	Power (+5V)
	Power (+3.3V)
N.C	No Connection

BLOCK DIAGRAM



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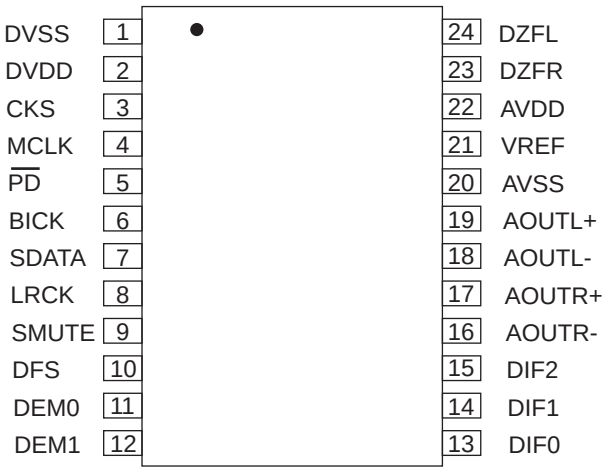
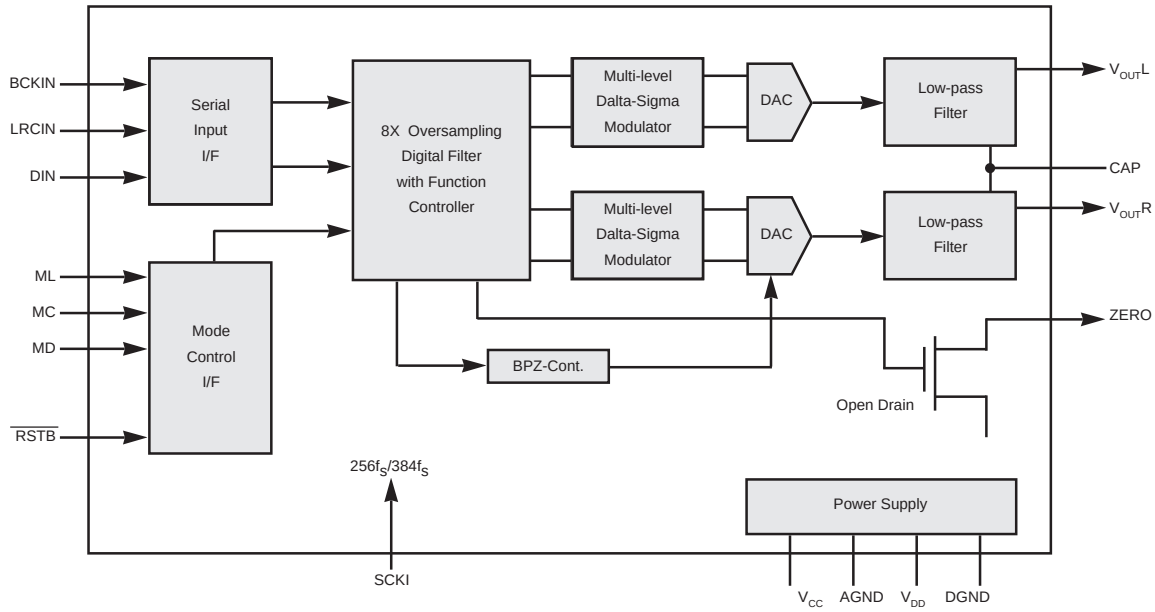


PIN ASSIGNMENT

Pin	NAME	I/O	FUNCTION
1	DVSS	-	Digital Ground Pin
2	DVDD	-	Digital Power supply
3	CKS	I	Master Clock Select Pin(Internal Pull-down pin) Normal Speed “L” : MCLK=256fs, “H” : MCLK=384fs Double Speed “L” : MCLK=128fs, “H” : MCLK=192fs
4	MCLK		Master Clock Input Pin
5	$\overline{PD}$	I	Power-Down Mode Pin When at “L”, the AK4324 is in power-down mode and is held in reset The AK4324 should always be reset upon power-up
6	BLCK	I	Audio Serial Data Clock Pin 64fs clock is recommended to be input on this pin
7	SDATA	I	Audio Serial Data Input Pin 2’s complement MSB-first data is input on this pin
8	LRCK	I	L/R Clock pin
9	SMUTE	I	Soft Mute Pin When this pin goes “H”, soft mute cycle is initiated. When returning “L”, the output mute releases.
10	DFS	I	Double speed sampling mode Pin(Internal Pull-down pin) “L” : Normal Speed, “H” : Double Speed
11	DEM0	I	De-emphasis Frequency Select Pin
12	DEM1	I	De-emphasis Frequency Select Pin
13	DIF0	I	Digital Input Format Pin
14	DIF1	I	Digital Input Format Pin
15	DIF2	I	Digital Input Format Pin
16	AOUTR-	O	Rch Negative analog output pin
17	AOUTR+	O	Rch Positive analog output pin
18	AOUTL-	O	Lch Negative analog output pin
19	AOUTL+	O	Lch Positive analog output pin
20	AVSS	-	Analog Ground pin
21	VREF	I	Voltage Reference Input Pin
22	AVDD	-	Analog Power Supply Pin
23	DZFR	O	Rch Zero Input Detect Pin
24	DZFL	O	Lch Zero Input Detect Pin

BLOCK DIAGRAM



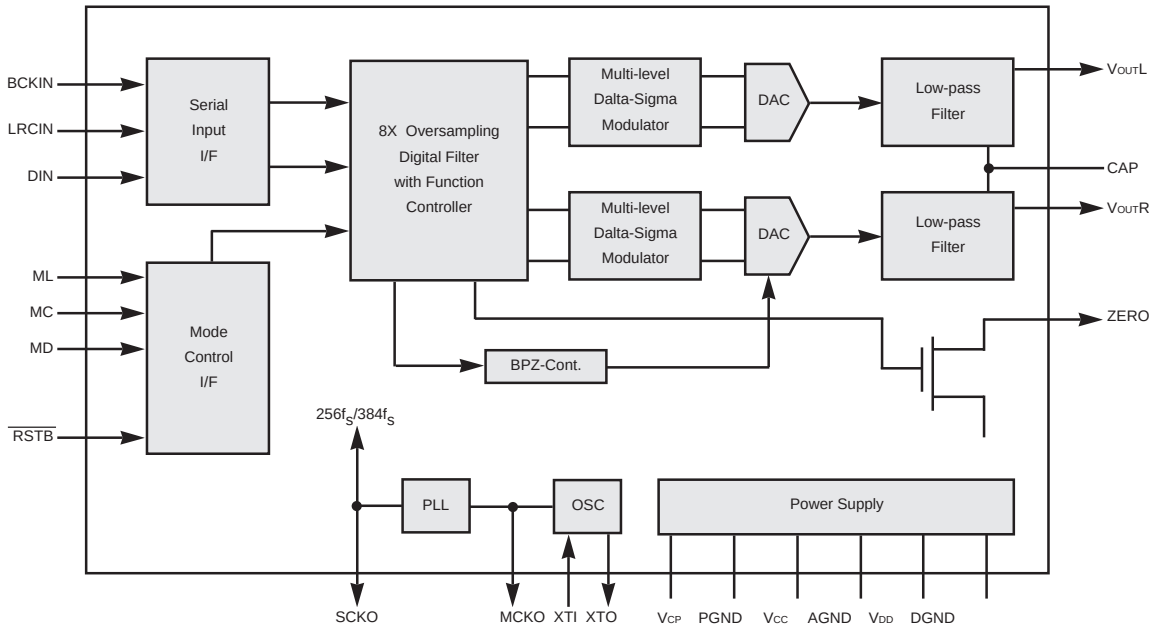
PIN ASSIGNMENT

PIN	I/O	NAME	FUNCTION
1	-	NC	No Connection.
2	IN	SCKI	System Clock input: $256f_S$ or $384f_S$.
3	OUT	TEST	Reserved for Factory Use.
4[i]	IN	ML	Latch Enable for Serial Control Data.
5[i]	IN	MC	Clock for Serial Control Data.
6[i]	IN	MD	Data Input for Serial Control.
7[i]	IN	RSTB	Reset Input. When this pin is low, the digital filters and modulators are held in reset.
8	OUT	ZERO	Zero Data Flag. This pin is low when the data is continuously zero for more than 65,535 cycles ro BCKIN.
9	OUT	$V_{OUT}R$	Right Channel Analog Output.
10	PWR	AGHD	Analog Ground.
11	PWR	V_{CC}	Analog Power Supply (+5V).
12	OUT	$V_{OUT}L$	Left Channel Analog Output.
13	-	CAP	Common Pin for Analog Output Amplifiers.
14[i]	IN	BCKIN	Bit Clock for Clocking in the Audio Data.
15[i]	IN	DIN	Serial Audio Data input.
16[i]	IN	LRCIN	Left/Right Word Clock. Frequency is equal to fs.
17	-	NC	No Connection.
18	-	NC	No Connection.
19	PWR	V_{DD}	Digital Power supply(+5V). Recommended connection is to the analog power supply.
20	PWR	DGND	Digital Ground. Recommended connection is to the digital ground plane.

[i]These pins include internal pull-up resistors.

6-15 DIGITAL-TO-ANALOG CONVERTER WITH PLL (AIC3 ; PCM 1723)

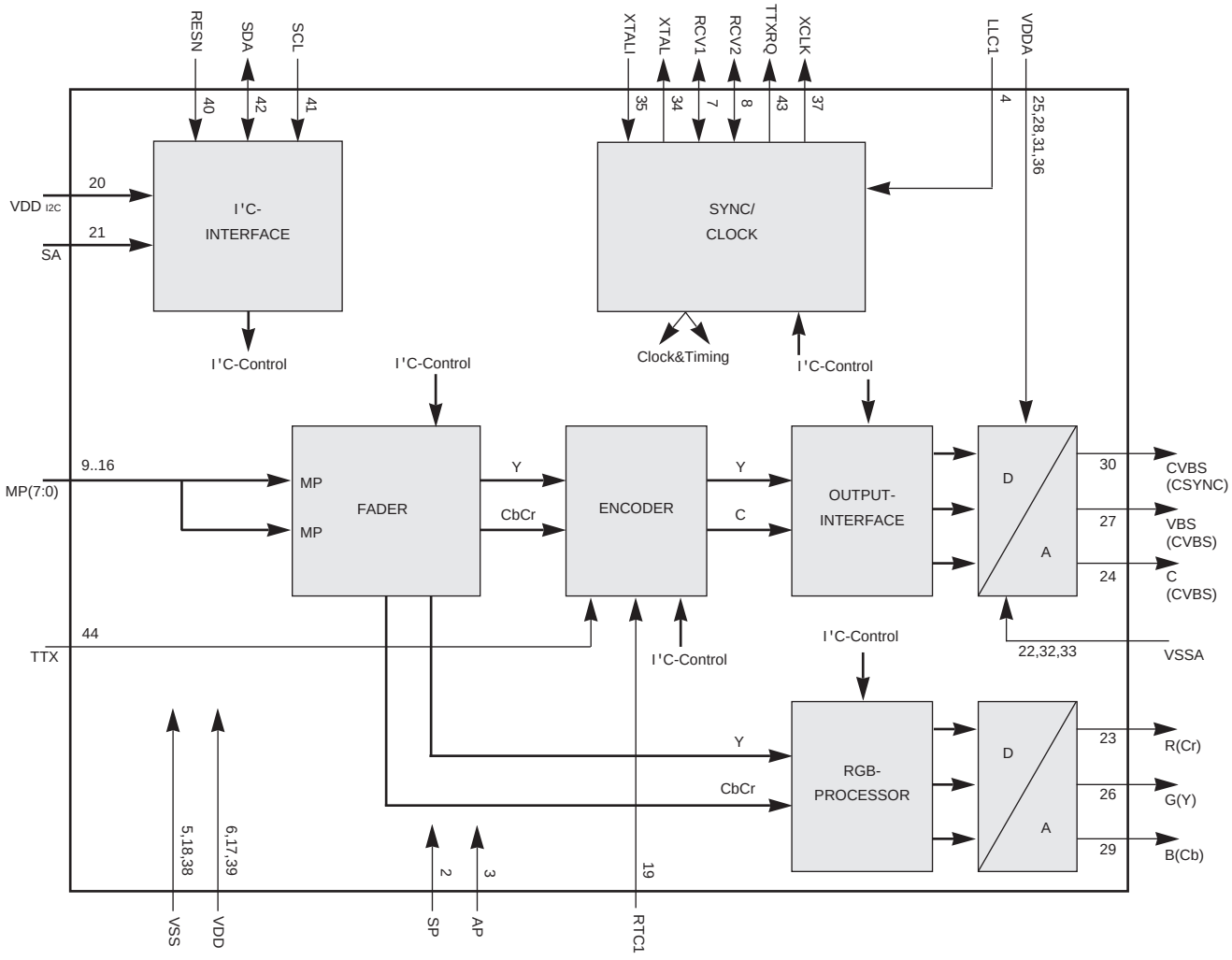
BLOCK DIAGRAM



PIN ASSIGNMENT

PIN	I/O	NAME	FUNCTION
1	IN	XTI	Master Clock Input.
2	OUT	SCKO	System Clock Out. This output is $256f_S$ or $384f_S$. system clock generated by the internal PLL.
3	PWR	V_{CP}	PLL Power Supply (+5V).
4	N/A	NC	No Connection.
5	OUT	MCKO	Buffered clock output of crystal oscillator.
6	IN	ML	Latch for serial control data.
7	IN	MC	Clock for serial control data.
8	IN	MD	Data for serial control.
9	IN	RSTB	Reset Input. When this pin is low, the digital filters and modulators are held in reset.
10	OUT	ZERO	Zero Data Flag. This pin is low when the input data is continuously zero for more than 65,535 cycles ro BCKIN.
11	OUT	$V_{OUT}B$	Right Channel Analog Output.
12	GND	AGND	Analog Ground.
13	PWR	V_{CC}	Analog Power Supply (+5V).
14	OUT	$V_{OUT}L$	Left Channel Analog Output.
15		CAP	Common Pin for analog output amplifiers.
16	IN	BCKIN	Bit Cclock for clocking in the audio data.
17	IN	DIN	Serial audio data input.
18	IN	LRCIN	Left/Right Word Clock. Frequency is equal to f_S.
19	N/A	NC	No Connection.
20	N/A	RES	Reserved for factory use, do not connect.
21	PWR	V_{DD}	Analog Power Supply (+5V).
22	GND	DGND	Digital Ground.
23	GND	PGND	PLL Ground.
24	Out	XTO	Crystal oscillator output.
Note:(1)Schmitt triger input with intermal pull-up resistors. (2) Schmitt triger input.			

BLOCK DIAGRAM



PIN ASSIGNMENT

PIN	I/O	NAME	FUNCTION
1		res.	reserved pin, do not connect
2	I	SP	Test Pin;connected to digital ground for normal operation
3	I	AP	Test Pin;connected to digital ground for normal operation
4	I	LLC1	Line-Locked Clock input;this is the 27 MHz master clock
5	I	V_{SS1}	digital supply ground 1
6	I	V_{DD1}	digital supply 1
7	I/O	RCV1	Raster Contral 1 for video port. This pin receives/provides a VS/FS/FSEQ signal.
8	I/O	RCV2	Raster Contral 2 for video port. This pin provides an HS pulse of programmable length or receives an HS pulse.
9	I	MP7	Double speed 54 MHzMPEG port. It is an input for¡ *CCIR 656*¡-style multiplexed Cb, Y, Cr data. Data are sampled on the rising and falling clock edge;data sampled on the risting edge then are sent to the encoding part of the device, data sampled on the falling edge are sent to the RGB part of the device.(or vice verse, depending on programming)
10	I	MP6	
11	I	MP5	
12	I	MP4	
13	I	MP3	
14	I	MP2	
15	I	MP1	
16	I	MP0	
17	I	V_{DD2}	digital supply voltage 2
18	I	V_{SS2}	digital ground 2
19	I	RTCI	Real Time Control input. If the LLC1 clock is provided by an SAA7111 or SAA7151B, RTCI should be connected to the RTCO pin of the respective decoder to improve the signal quality.
20	I	VDD_{I2C}	Sense input for 12C bus voltage;connect to 12C bus supply
21	I	SA	Select 12C address; low selects slave address 88h, high selects slave address 8Ch.
22	I	V_{SSA1}	Analog ground 1 for Red (Cr), C(CVBS), Green(Y) outputs
23	O	R(Cr)	Analog output of Red (Cr)signal
24	O	C	Analog output of Chrominance (CVBS) signal
25	I	V_{DDA1}	Analog supply voltage 1 for R(Cr), C(CVBS) outputs
26	O	G(Y)	Analog output of Green(Y) signal
27	O	VBS	Analog output of VBS (CVBS) signal
28	I	V_{DDA2}	Analog supply voltage 2 for VBS(CVBS), Green(Y) outputs
29	O	B(Cb)	Analog output of Blue(Cb) signal
30	O	CVBS	Analog output of CVBS(CSYNC) signal
31	I	V_{DDA3}	Analog supply voltage 3 for Blue(Cb)and CVBS(CSYNC), outputs
32	I	V_{SSA2}	Analog ground 2 for VBS (CVBS), Blue(Cb), CVBS(CSYNC)outputs
33	I	V_{SSA3}	Analog ground 3 for the DAC reference ladder and the oscillator
34	O	XTAL	Crystal oscillator output
35	I	XTAL1	Crystal oscillator input; if the oscillator is not used, this pin should be connected to ground.

PIN ASSIGNMENT

PIN	I/O	NAME	FUNCTION
36	I	V_{DDA4}	Analog supply voltage 4 for the DAC reference ladder and the oscillator
37	O	XCLK	Clock output of the crystal oscillator
38	I	V_{SS3}	digital supply ground 3
39	I	V_{DD3}	digital supply 3
40	I	RESN	Reset input, active LOW. After reset is applied, all digital I/Os are in input mode; PAL-Blackburst on CVBS, VBS and C;RGB outputs set to lowest voltage. The 12C-bus receiver waits for the START condition.
41	I	SCL	12C serial clock input
42	I/O	SDA	12C serial data input/output
43	O	TTXRQ	Teletext Request output, indicating when text bits are requested
44	I	TTX	Teletext bit stream input

6-17 FRONT MOCOM (FIC1 ; LC 86P6232)

PIN ASSIGNMENT

PIN		I/O	NAME	FUNCTION
1	P52	O		
2	PWM1	O		
3	P20	O		
4	P21	O		
5	P22	O		
6	P23	O		
7	P24	O		
8	P25	O		
9	P26	O		
10	P27	O	MUTE0	Audio Mute 0
11		O	TEST1	TEST PORT
12		I	RESET	MICOM RESET
13		I	XT1	TIMER CLOCK
14		O	XT2	
15			VSS	
16		I	CF1	MICOM CLOCK (12MHZ)
17		O	CF2	
18		I	VDD	POWER (+5V)
19	P80	I		Not Use
20	P81	O		
21	P82	O		
22	P83	O		
23	P84	I		
24	P85	O		
25	P86	I		
26	P87	I		
27	P70	I	RRQ	FRONT MICOM <-- MAIN MICOM RECEIVE REQUEST
28	P71	I	INT1	Not Use
29	P72	I	INT2	Not Use
30	P73	I	INT3	REMOCON RECEIVE INTTERUPT

PIN		I/O	NAME	FUNCTION
31	S0	O		
32	S1	O		
33	S2	O		
34	S3	O		
35	S4	O	GRID1	FLT DISPLAY GRID 1
36	S5	O	GRID2	FLT DISPLAY GRID 2
37	S6	O	GRID3	FLT DISPLAY GRID 3
38	S7	O	GRID4	FLT DISPLAY GRID 3
39	S8	O	GRID5	FLT DISPLAY GRID 3
40	S9	O	GRID6	FLT DISPLAY GRID 3
41	S10	O	GRID7	FLT DISPLAY GRID 3
42	S11	O	GRID8	FLT DISPLAY GRID 3
43	S12	O	GRID9	FLT DISPLAY GRID 3
44	S13	O	GRID10	FLT DISPLAY GRID 3
45	S14	O	GRID11	FLT DISPLAY GRID 3
46	S15	O	SEGO	FLT DISPLAY SEGMENT 0
47		I	VDDVPP	+5V
48		I	VPP	-33V
49	S16	O	SEG1	FLT DISPLAY SEGMENT 1
50	S17	O	SEG2	FLT DISPLAY SEGMENT 2
51	S18	O	SEG3	FLT DISPLAY SEGMENT 3
52	S19	O	SEG4	FLT DISPLAY SEGMENT 4
53	S20	O	SEG5	FLT DISPLAY SEGMENT 5
54	S21	O	SEG6	FLT DISPLAY SEGMENT 6
55	S22	O	SEG7	FLT DISPLAY SEGMENT 7
56	S23	O	SEG8	FLT DISPLAY SEGMENT 8
57	S24	O	SEG9	FLT DISPLAY SEGMENT 9
58	S25	O	SEG10	FLT DISPLAY SEGMENT 10
59	S26	O	SEG11	FLT DISPLAY SEGMENT 11
60	S27	O	SEG12	FLT DISPLAY SEGMENT 12

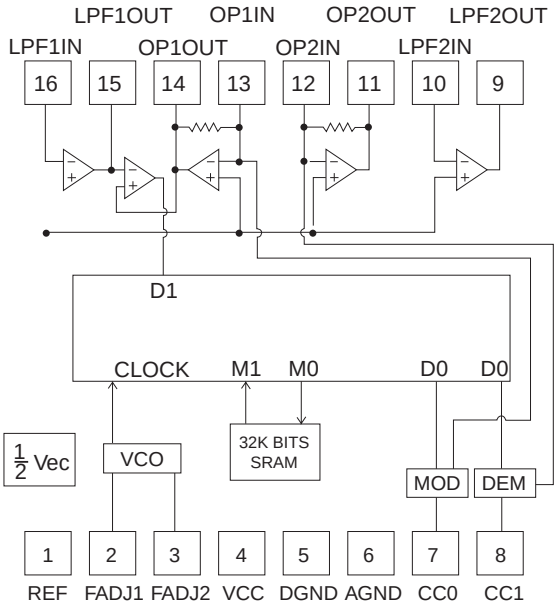
PIN ASSIGNMENT

PIN		I/O	NAME	FUNCTION
61	S28	O	SEG13	FLT DISPLAY SEGMENT 13
62	S29	O	SEG14	FLT DISPLAY SEGMENT 14
63	S30	O	SEG15	FLT DISPLAY SEGMENT 15
64	S31	O	SEG16	FLT DISPLAY SEGMENT 16
65	P00	I	KEYIN1	KEY INPUT 1
66	P01	I	KEYIN2	KEY INPUT 2
67	P02	I	KEYIN3	KEY INPUT 3
68	P03	I		
69	P04	O		
70	P05	O		
71	P06	O		
72	P07	O	SRQ	FRONT MICOM --> MAIN MICOM SEND REQUEST
73	P10	O	TXD	FRONT MICOM --> MAIN MICOM TRNS. DATA
74	P11	I	RXD	FRONT MICOM --> MAIN MICOM RECEIVE DATA
75	P12	O	CLOCK	FRONT MICOM --> MAIN MICOM COMM. CLOCK
76	P13	O		
77	P14	O		
78	P15	O		
79	P16	O		
80	P17	O		
81	P30	O	NOR	Function Key (Scart Jack)
82	P31	O	MUTE2	Audio Mute 2
83	P32	O		
84	P33	O		
85	P34	O		
86	P35	O	MUTE1	Audio Mute1
87	P36	O		
88	P37	O		
89			VSS	
90		O	VDD	POWER +5V

PIN		I/O	NAME	FUNCTION
91	P40	O		
92	P41	O	RST	SYSTEM RESET
93	P42	O		
94	P43	O		
95	P44	O		
96	P45	O		
97	P46	O	WIDE	Function Key (Scart Jack)
98	P47	O	POWER LED	
99	P50	O		
100	P51	O	POWER	SYSTEM POWER ON (H¡ ACTIVE)

6-18 ECHO SOUND PROCESSOR (KIC1 ; ES56033)

BLOCK DIAGRAM



PIN ASSIGNMENT

Pin	NAME	I/O	FUNCTION
1	REF	I	Reference voltage(=1/2 VCC)
2	FADJ1		Frequency_adjust 1
3	FADJ2		Frequency_adjust 2
4	VCC	I	Supply voltage input
5	DGND		Digital ground
6	AGND		Analog ground
7	CC0		Current control 0
8	CC1		Current control 1
9	LPF2OUT	O	Low pass filter 2 output
10	LPF2IN	I	Low pass filter 2 input
11	OP2OUT	O	It can be used as demodulated integrator by connected capacitor
12	OP2IN	I	It can be used as demodulated integrator by connected capacitor
13	OP1IN	I	It can be used as demodulated integrator by connected capacitor
14	OP1OUT	O	It can be used as demodulated integrator by connected capacitor
15	LPF1OUT	O	Low pass filter 1 output
16	LPF1IN	I	Low pass filter 1 input

MEMO

3. Product Specification

Model : DVD-907K/DVD-9901A

General	Power Requirements	AC 120 ~ 240V/50,60Hz
	Power Consumption	18W
	Weight	4.1Kg
	Set Size	W 420mm ×D 333mm ×H 80mm
	Operating Temperature Range	+41˚F ~ 95˚F
	Operating Humidity Range	10% ~ 75%
Disc	Power Requirements (DIGITAL VERSATILE DISK)	Reading Speed : 3.49m/sec
		Apporx. Play Time(Single Sided, Single Layer Disc) : 135 minutes
	CD : 12cm (COMPACT DISK)	Reading Speed : 1.2 ~ 1.4m/sec
		Maximum Play Time : 74minutes
	CD : 8cm (COMPACT DISK)	Reading Speed : 1.2 ~ 1.4m/sec
		Maximum Play Time : 20minutes
	VIDEO-CD : 12cm	Reading Speed : 1.2 ~ 1.4m/sec
		Maximum Play Time : 74minutes(Video + Audio)
Videl output	RCA JACK	2 channel : 1.0Vp-p
		Y : 1.0Vp-p
		Pr : 0.70Vp-p
		Pb : 0.70Vp-p
	S-VIDEO	Luminance Signal : 1Vp-p(75Ω load)
		Color Signal : 0.286Vp-p(75Ω load)
Audio output	2 channel	L(1/L). R(2/R)
	5.1 channel	F/L, F/R, R/L, R/R, C/T, S/w
	Output Level	Analog : 2Vrms(1KHz)
		Digital : 1.15Vp-p
	Frequency Response	* Frequency Response : 48KHz Sampling 4Hz-22KHz 96KHz Sampling 4Hz-44KHz, S/N Ratio : 106dB
		* Dynamic Range : 100dB
		* Total Harmonic Distortion 0.003%
	Wow/Flutter	Under measureable values

* : Nominal specification.

Model : DVD-807K/808K

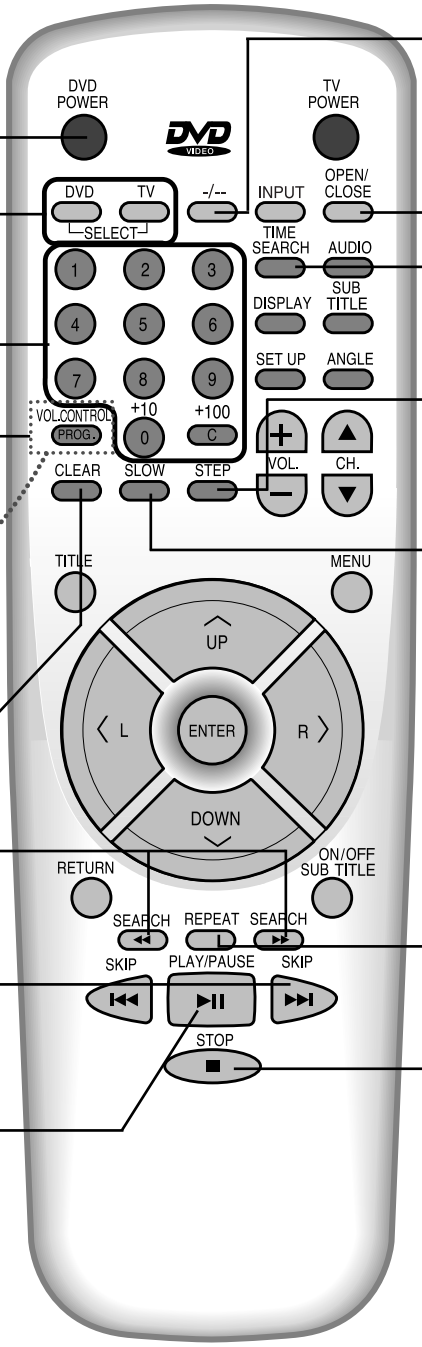
General	Power Requirements	AC 120 ~ 240V/50,60Hz
	Power Consumption	18W
	Weight	4.1Kg
	Set Size	W 420mm × D 333mm × H 80mm
	Operating Temperature Range	+5˚F ~ 35˚F
	Operating Humidity Range	10% ~ 75%
Disc	DVD (DIGITAL VERSATILE DISK)	Reading Speed : 3.49m/sec
		Apporx. Play Time(Single Sided, Single Layer Disc) : 135 minutes
	CD : 12cm (COMPACT DISK)	Reading Speed : 1.2 ~ 1.4m/sec
		Maximum Play Time : 74minutes
	CD : 8cm (COMPACT DISK)	Reading Speed : 1.2 ~ 1.4m/sec
		Maximum Play Time : 20minutes
	VIDEO-CD : 12cm	Reading Speed : 1.2 ~ 1.4m/sec
		Maximum Play Time : 74minutes(Video + Audio)
Videl output	1 channel	1.0Vp-p
Audio output	2 channel	L(1/L). R(2/R)
	Output Level	Analog : 2Vrms(1KHz)
		Digital : 1.15Vp-p
	Frequency Response	* Frequency Response : 48KHz Sampling 4Hz-22KHz 96KHz Sampling 4Hz-44KHz, S/N Ratio : 106dB
		* Dynamic Range : 100dB
		* Total Harmonic Distortion 0.003%
	Wow/Flutter	Under measureable values

* : Nominal specification.

4. Operating Instructions

4-1 Remote Control

4-1-1 Basic Operation



POWER Button

SELECT Buttons
(for DVD, TV)
To operate DVD or TV.

CHANNEL/NUMBER Buttons

VOL.CONTROL Button(907K only)
To control the sound volume of analog AC-3 output.

807K/808K
PROGRAM

PROGRAM Button
To program selections in desired order.

CLEAR Button
To cancel a memorized program

SEARCH Buttons
To search through tracks easily and rapidly.

SKIP Buttons
To skip selections on discs.

PLAY/PAUSE Button
Play/Pause/To start playback from the last stopped point on the disc.

-/--(CLEAR AND RESET) Button
Used to enter a two-figure programme number.
Example : For programme 12, press -/-- followed by numeric buttons 1 and 2.

OPEN / CLOSE Button

TIME SEARCH Button
To search for a position on a disc.

STEP Button
To advance playback one frame at a time.

SLOW Button
To enjoy video in slow motion during DVD/VIDEO-CD playback.

REPEAT Button
To repeat the entire disc, or a desired title or track.

STOP Button

fig 4-1

4-1-2 Button for DVD/TV

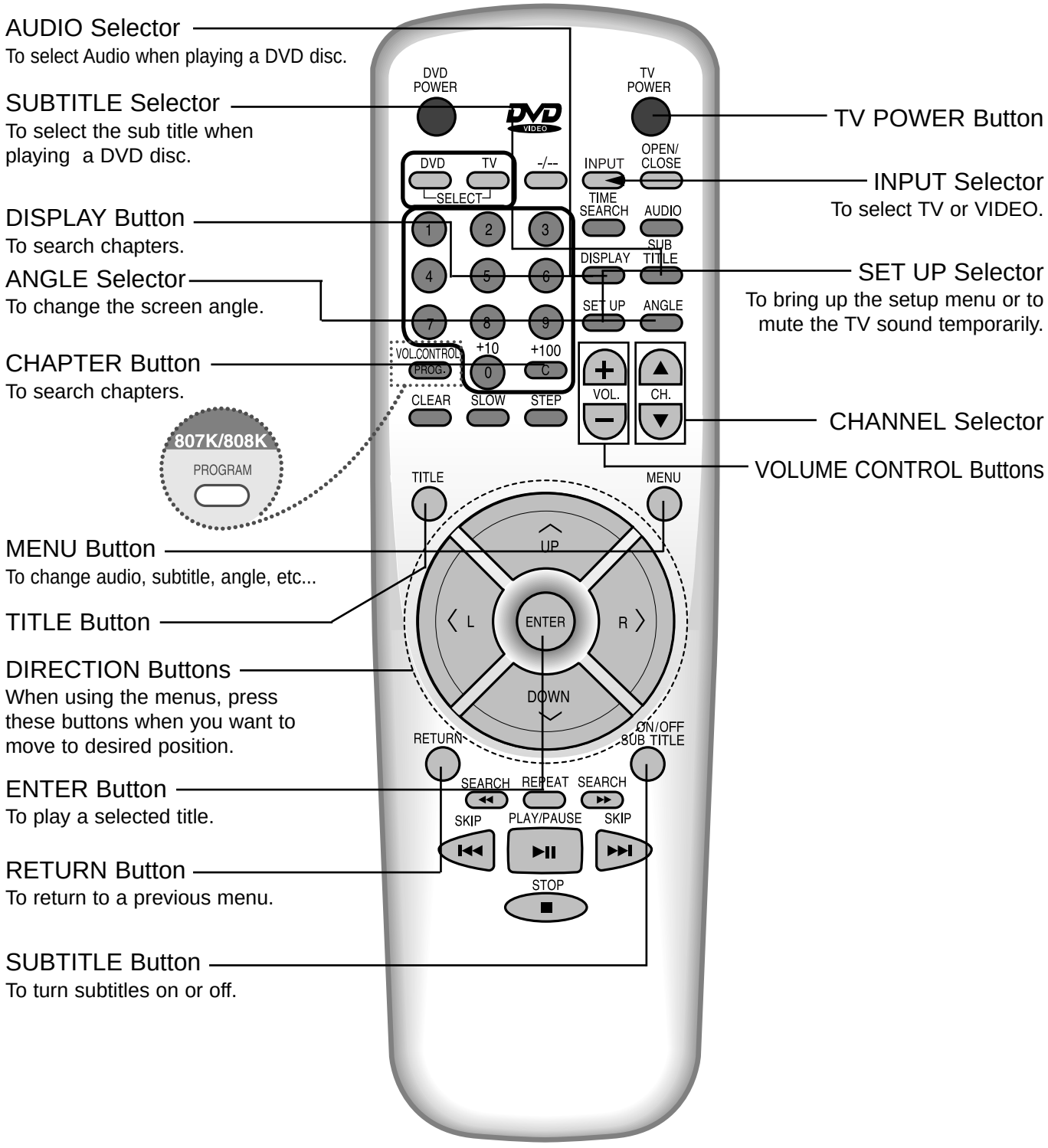


fig 4-2

4-2 Use of Menu

4-2-1 Use of Menu on the Disc

- Various Menus are listed on a DVD, and menus differ from disc to disc.
- You can see the menu screen only when a menu is contained on the disc.

4-2-2 Use of Setup Menu

1) Screen Menu Language

You can select the menu language recorded on the disc

If the selected menu language is not recorded on the disc, the original pre-recorded language is selected.

2) Audio Language

If you set up the audio language in advance, you can watch movies with pre-selected audio. You don*t need to set up audio every time you watch a movie.

If the selected audio language is not recorded on the disc, the original pre recorded audio language is selected.

3) Subtitle Language

If you set up the subtitle language in advance, it will come up automatically every time you watch a movie.

If the selected subtitle is not recorded on the disc, the original pre-recorded Subtitle is selected.

4) Screen Angle Mark

This function allows you to turn the screen angle mark on or off in order to view various screen angles.

If your DVD disc is encoded with screen angles, angle mark will be displayed when the screen angle mark is set to *ON*

5) Parental Level

The Parental Level control allows users to set the level necessary to prevent children from viewing unsuitable movies such as those with violence, adult subject matter, etc. ... There are up to 8 parental levels on a disc and they can be used to prevent the viewing of certain movies. For Example, Level 1 is the "Kids Safe" level and is the most restrictive. Only youth oriented movies will be played back when the player is set to Level 1. Level 8 is the "Adult" level and is the least restrictive. All types of movies will play when the player is set to this level.

The Parental Level Control function is compatible only with parental level encoded discs.

If you forget your password, press the CLEAR button 3 times successively while in the *ENTER PASSWORD*

1111 is the original password that has been encrypted in the player by the manufacturer.

6) Screen Ratios

As DVD supplies the screen with a 16:9 ratio, you can decide which type of screen you want to watch.

The Screen Ratio settings depend on What is encoded on the disc.

7) Audio Output

You can configure the digital audio output jack to deliver Dolby Digital (AC-3) Data to any AC-3 decoding amplifier by using the setup menu. If you are not using an AC-3 decoding amplifier, you should configure the audio output as PCM in setup menu.

If you*ve configured the audio output as PCM, the audio output is automatically changed to AC-3 when you set either CENTER or SURROUND in SURROUND SOUND as YES.

If you*ve configured the audio output as PCM, both CENTER and SURROUND in surround sound are automatically changed to NO.

8) Surround Sound

You can configure analog audio output as surround sound or stereo sound using the setup menu. If you*ve selected surround sound output, you should specify the status of your speaker system to hear surround sound suitable for your speaker system.

If you*ve configured the digital audio out as PCM, the selection of *SURROUND SOUND* will not work.

If you have only front left and right speakers, you should set center, surround, subwoofer to *NO*.

If you have front left, front right and center speakers only, you should set the center to *YES*

If you have only front left, front right, center and surround speakers, you should set the center and surround to *YES*

If you have all speakers needed for AC-3, you should set the center, surround and subwoofer to *YES*.

When you have configured the audio output as AC-3 and have set the CENTER of the surround sound to YES, you must have a center speaker connected to hear the dialogue.

4-3 CONNECTION

4-3-1 Basic Connection

1) Connecting to a TV

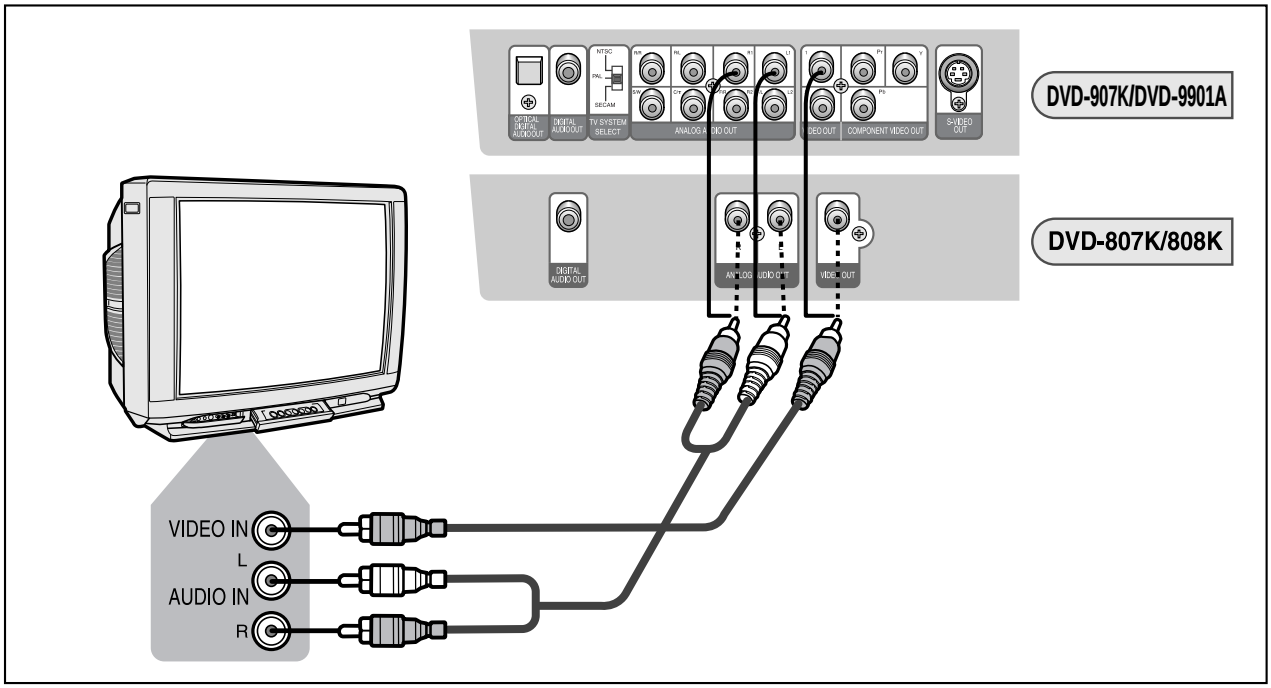


Fig.4-3

2) Connecting to an Audio system

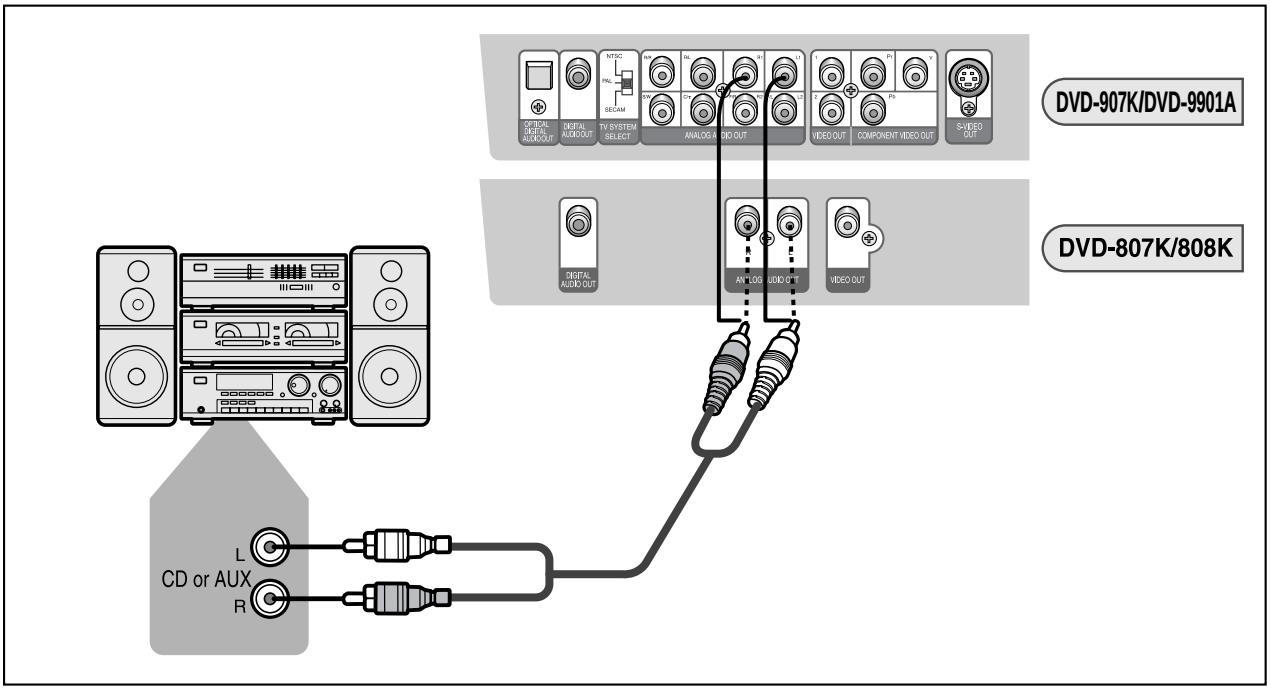


Fig. 4-4

4-3-2 Connections

1) S-VIDEO Connection(DVD-907K/DVD-9901A only)

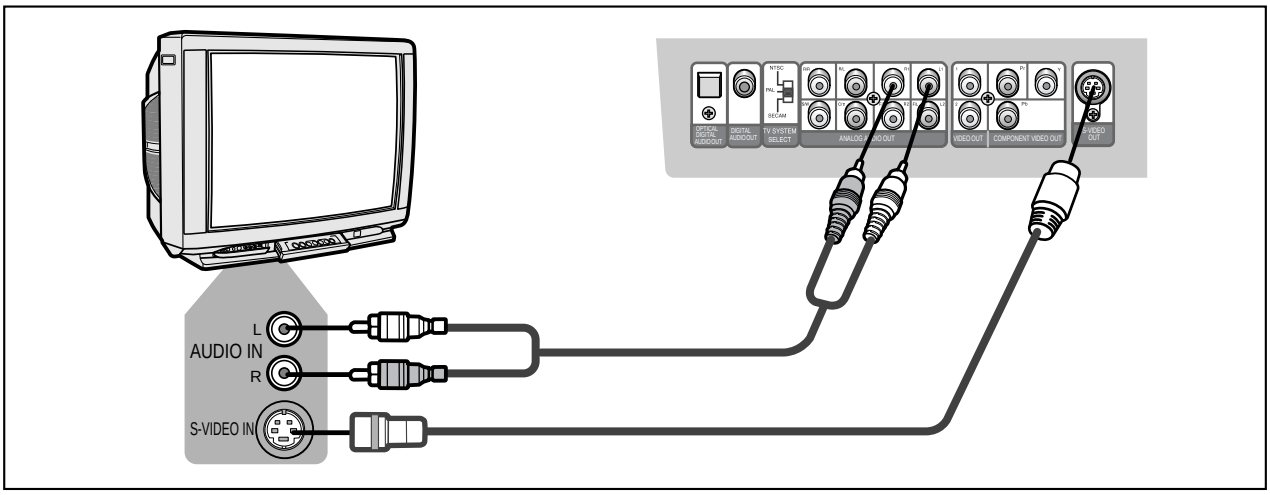


Fig. 4-5

2) AC-3 5.1 channel and Y,Pr,Pb Video connection

- Component signals(Y, Pr, Pb) are output from the Y,Pr,Pb jacks.

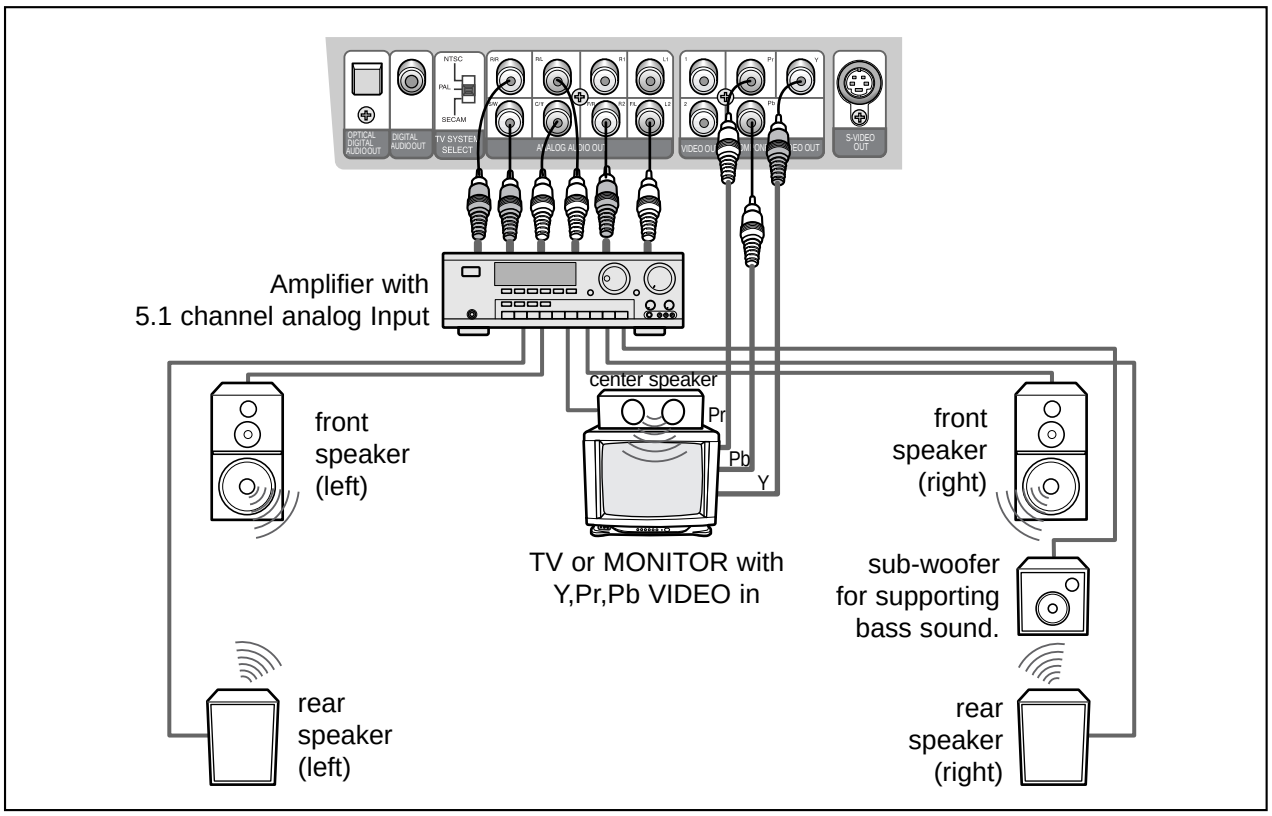


Fig. 4-6

3) AC-3 5.1 channel and S-Video connection

- AC-3 5.1 channel connection.

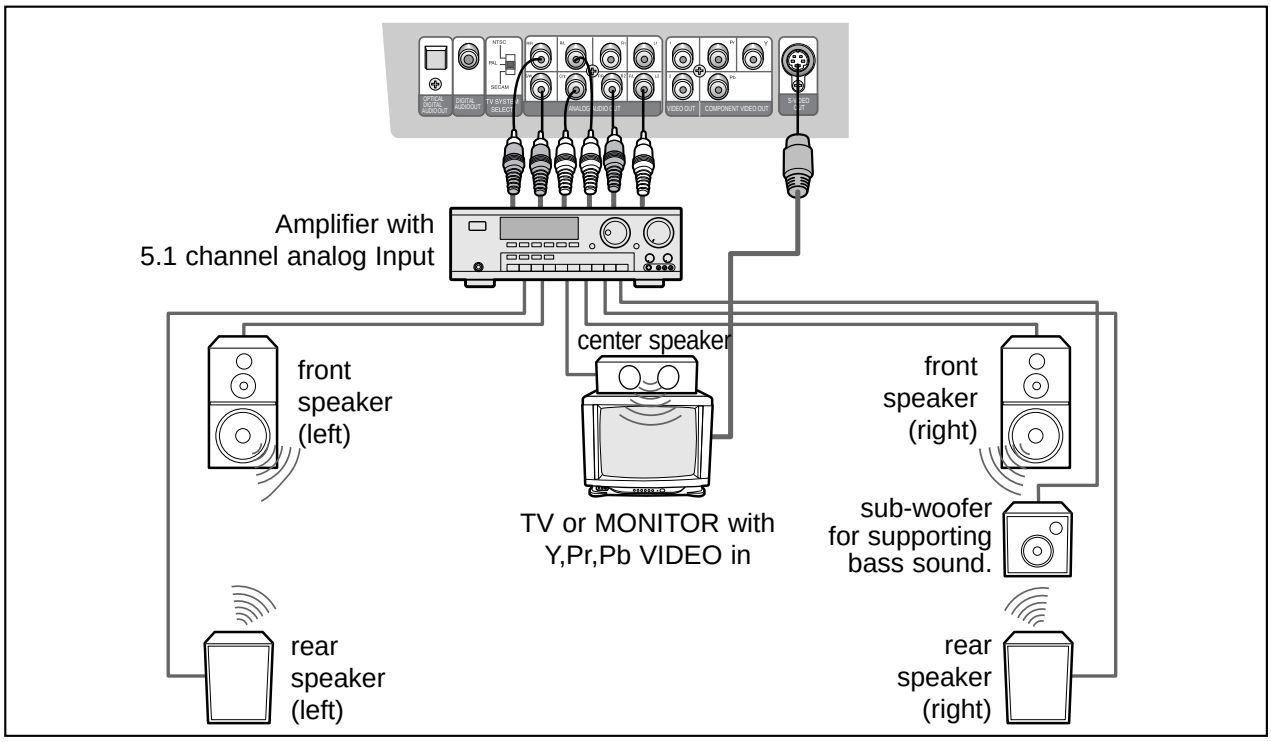


Fig. 4-7

4) Stereo amplifier and S-Video connection. (2 channel)

- Normal stereo amplifier connection, (2 channel)

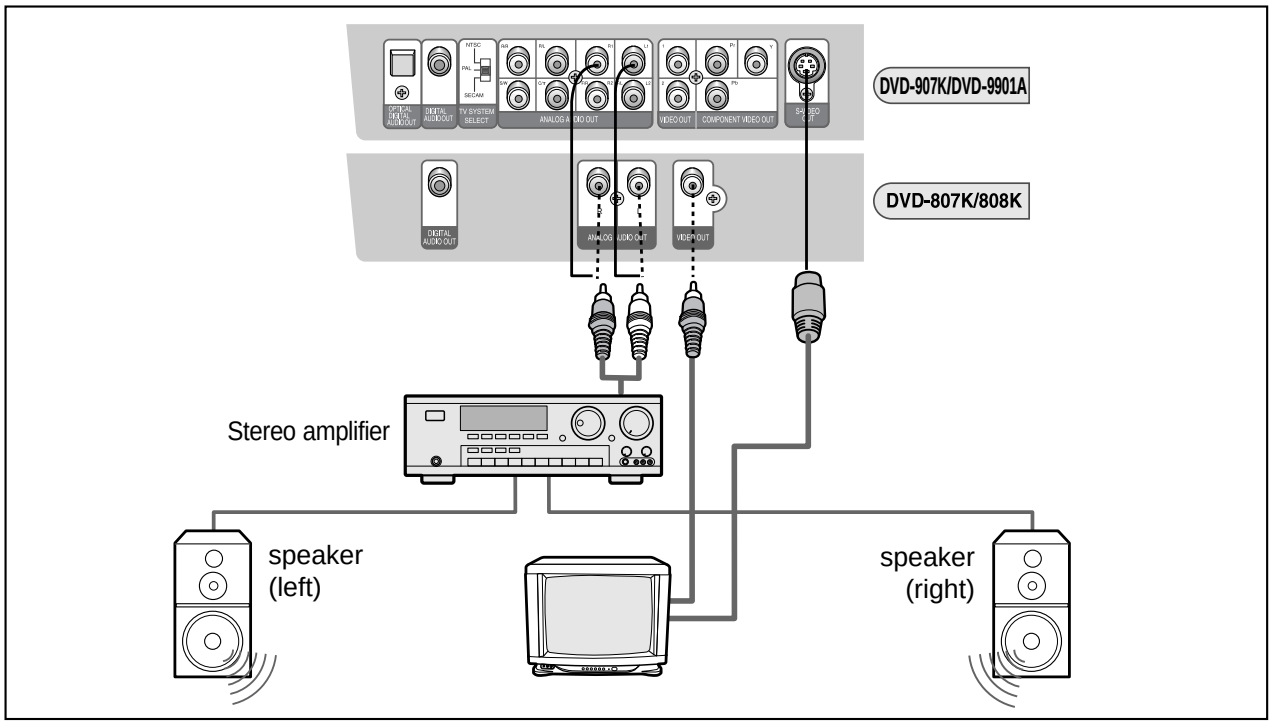


Fig. 4-8

5) Dolby Pro-Logic Connection

- Either the Optical Digital Audio Out, Digital Audio Out or Analog Audiot Out (R/L) should be connected to the Dolby Pro-Logic amplifier.
- The Optical Digital Audio Out and Digital Audio Out both output the same signal.

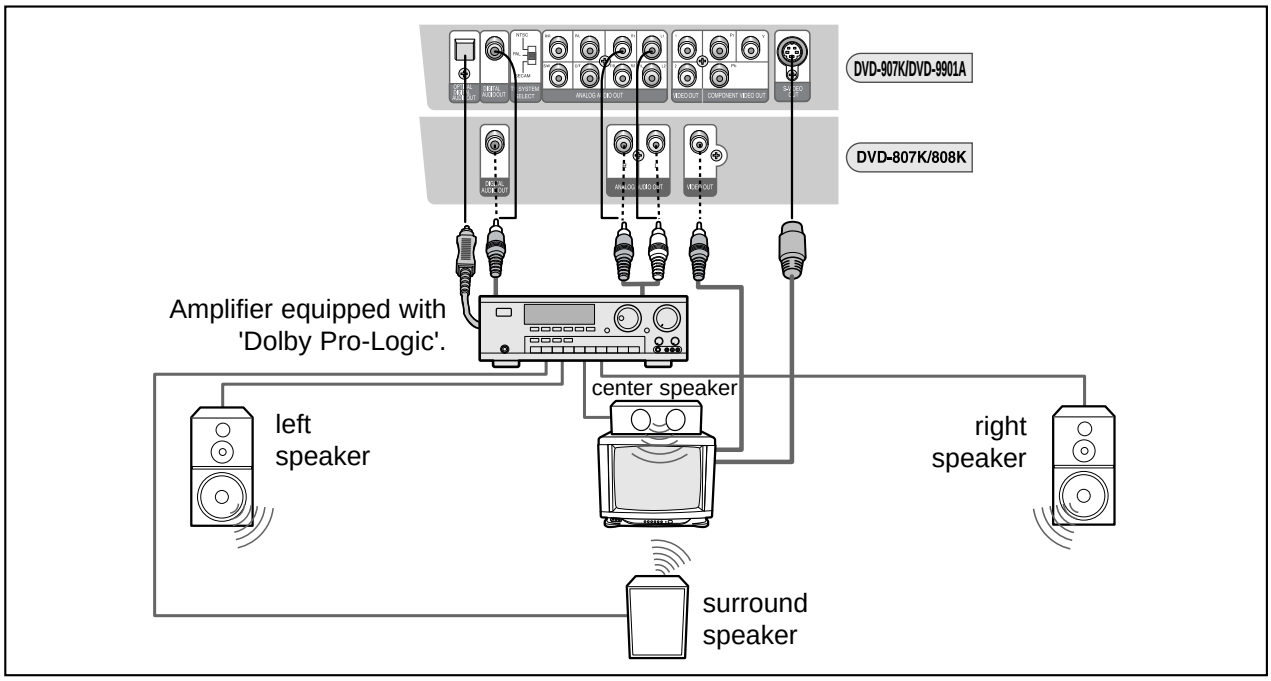


Fig. 4-9

6) AC-3 decoder amplifier digital connection

- Either the Optical Digital Audio Out or the coaxial Digital Audio Out should be connected to the AC-3 decoder amplifier.
- The Optical Digital Audio Out and Digital Audio Out both output the same signal.

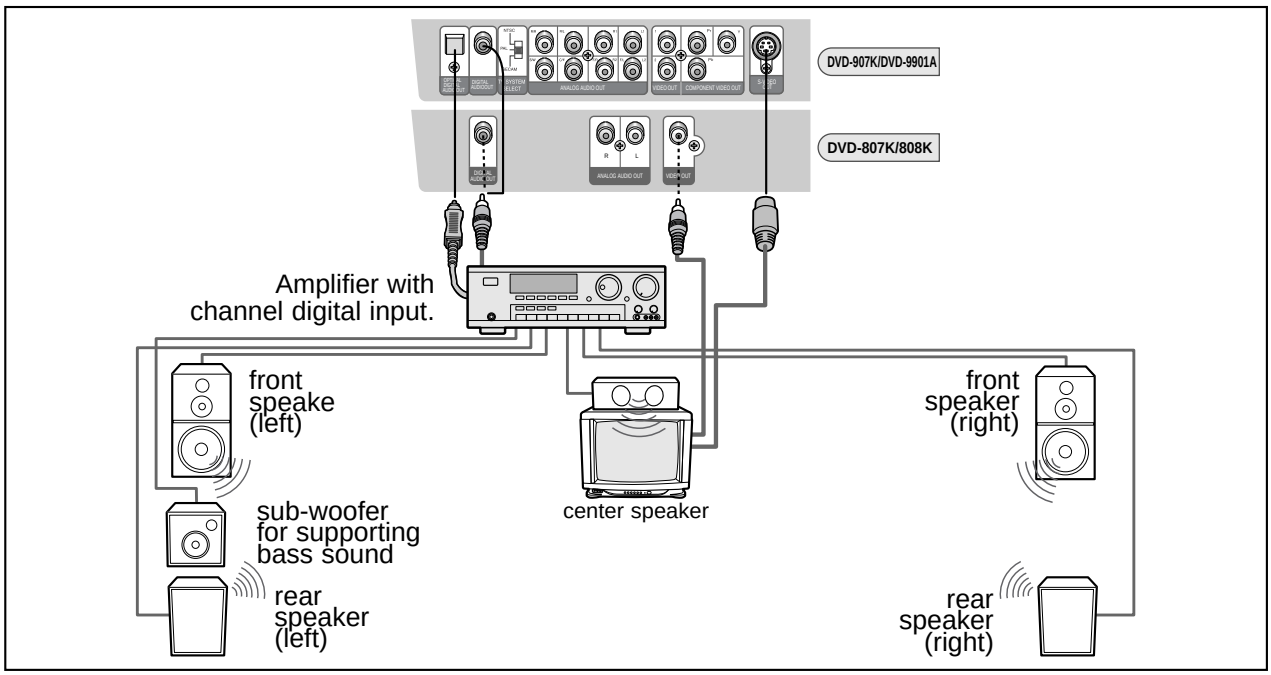


Fig. 4-10

MEMO

5. Disassembly and Reassembly

5-1 Exterior and PCB Disassembly

5-1-1 Door-tray

1) Supply power and open Tray ❶ .
2) Disassemble the door-tray ❷ in direction of arrow.
3) Close Tray ❶ and power off.

Note : If Tray ❶ doesn't open, insert a clip ❸ into the hole (as shown in detailed drawing), and open Tray ❶ manually.

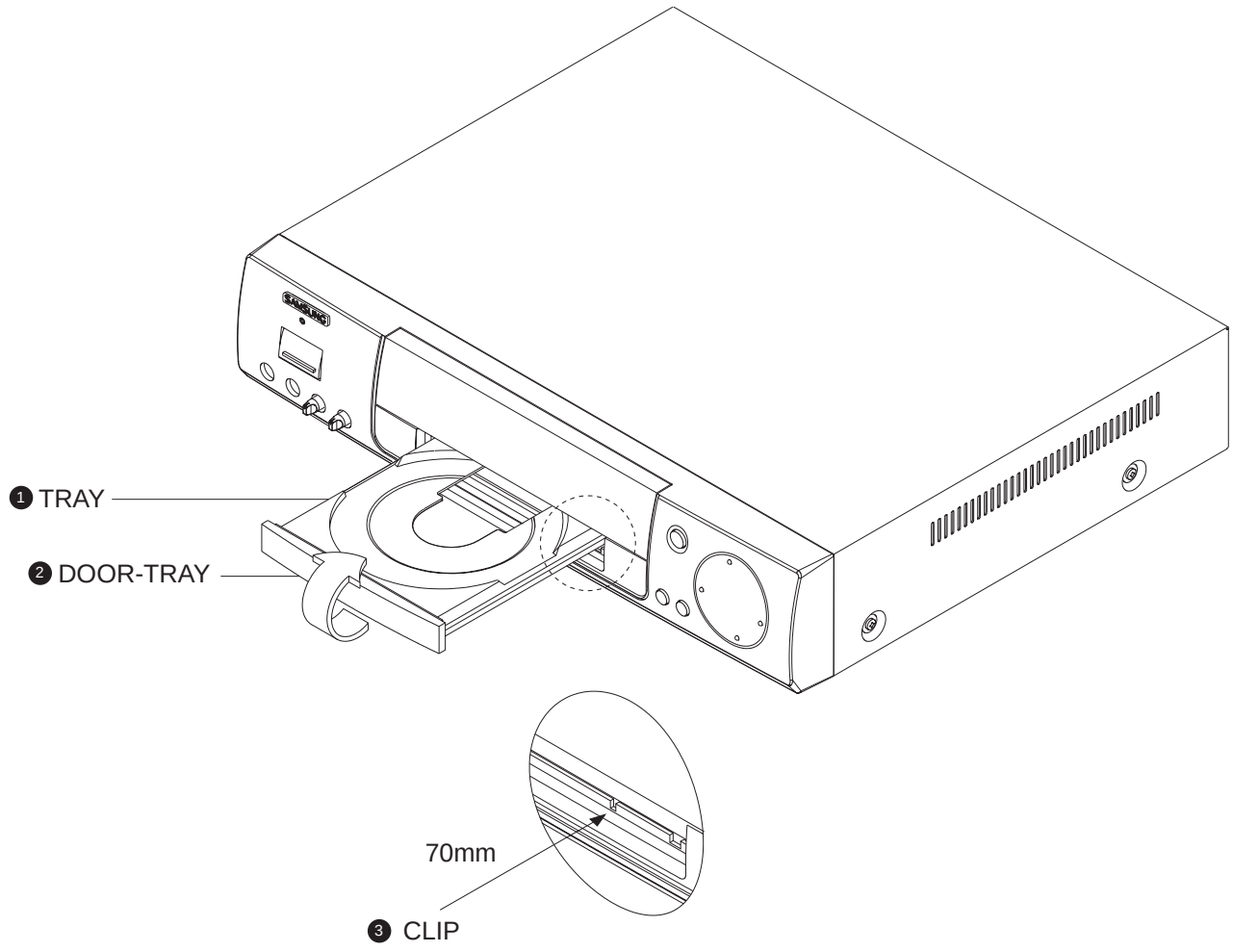


Fig. 5-1

5-1-2 Top cabinet

1. Remove 3 screws ❶ on the back panel.
2. Remove 4 screws ❷ , ❸ on the left and right side.
3. Lift up the top cabinet in direction of arrow.

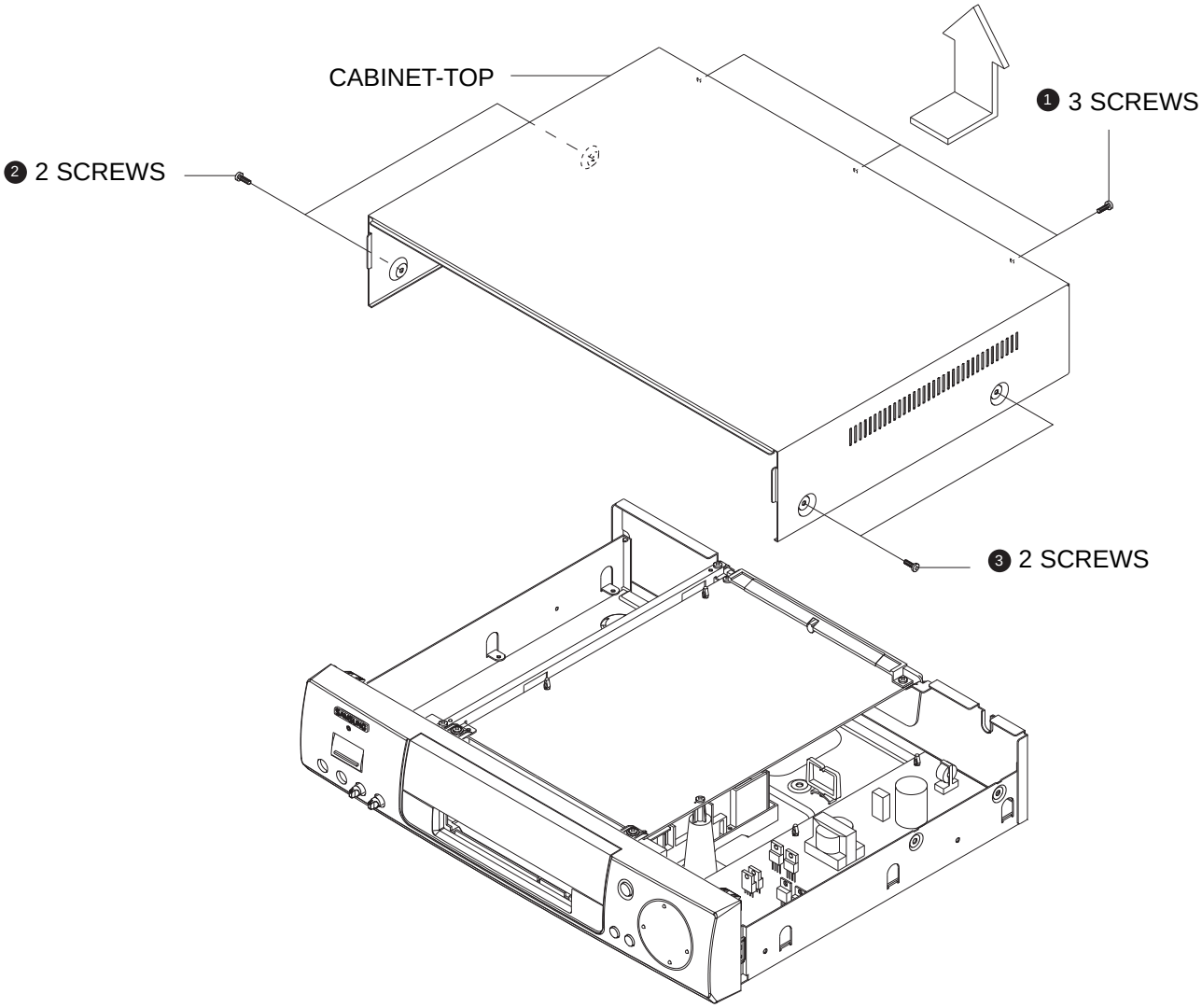


Fig. 5-2

5-1-3 Panel-Front, PCB-Front

1. Remove 2 screws ❶ , ❷ on the left and right side of panel-front ass'y
2. Remove 2 screws ❸ on the bottom of cover-panel ass'y and disassemble the front.
3. Remove 2 screws ❹ from PCB-front.
4. Remove 9 hooks to fix PCB-front and disassemble PCB-front.
5. Remove 2 screws ❺ on the top of cover-panel ass'y
6. Remove 4 top hooks ❻ and 5 bottom hooks ❼ and disassemble the cover-panel ass'y.

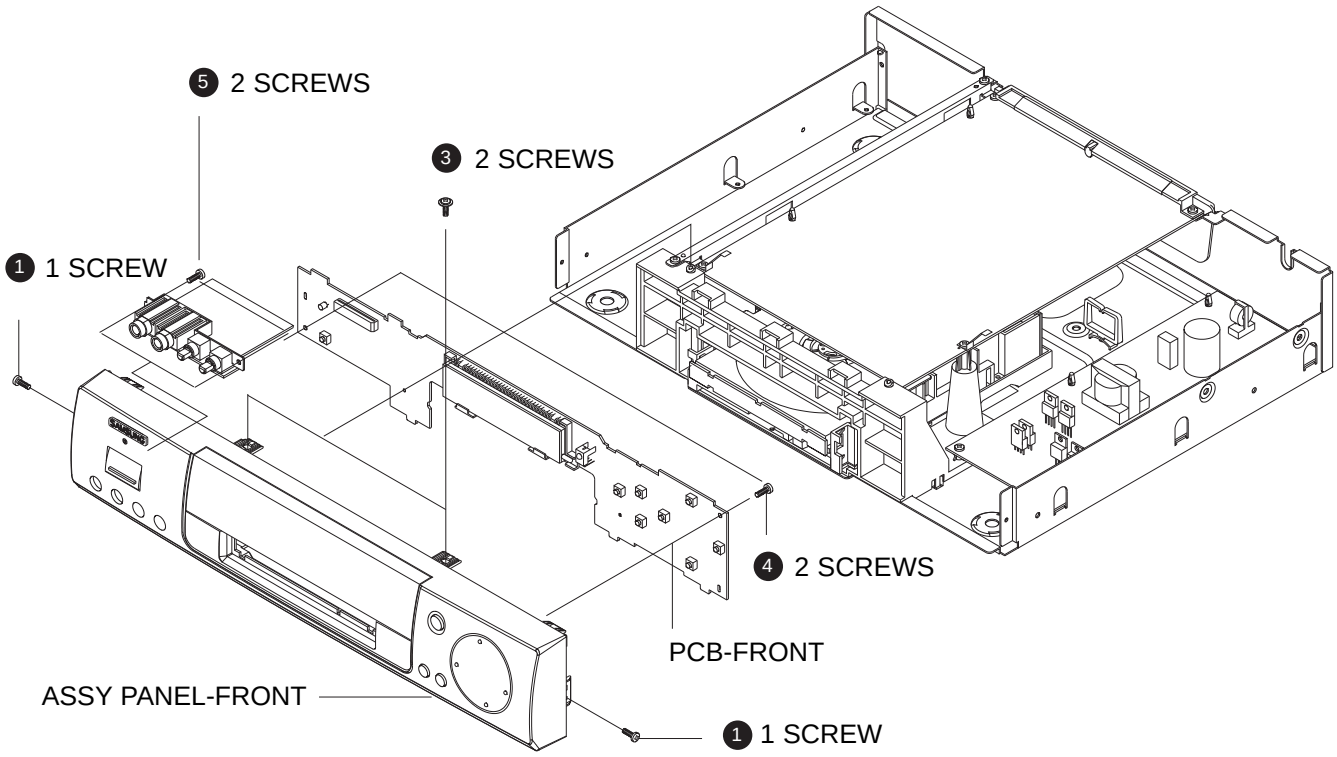


Fig. 5-3

5-1-4 PCB-MAIN, PCB-SMPS

1. Remove 4 screws ❶ to fix PCB-MAIN.
2. Remove 2 Holder-PCB ❷ inserted in PCB-MAIN and lift up PCB-MAIN.
3. Remove 3 screws ❸ from PCB-SMPS.
4. Remove 3 Spacer-PCB ❹ inserted in PCB-SMPS and lift up PCB-SMPS.
5. Remove 2 screws ❺ to fix BRKT-PCB ass'y.

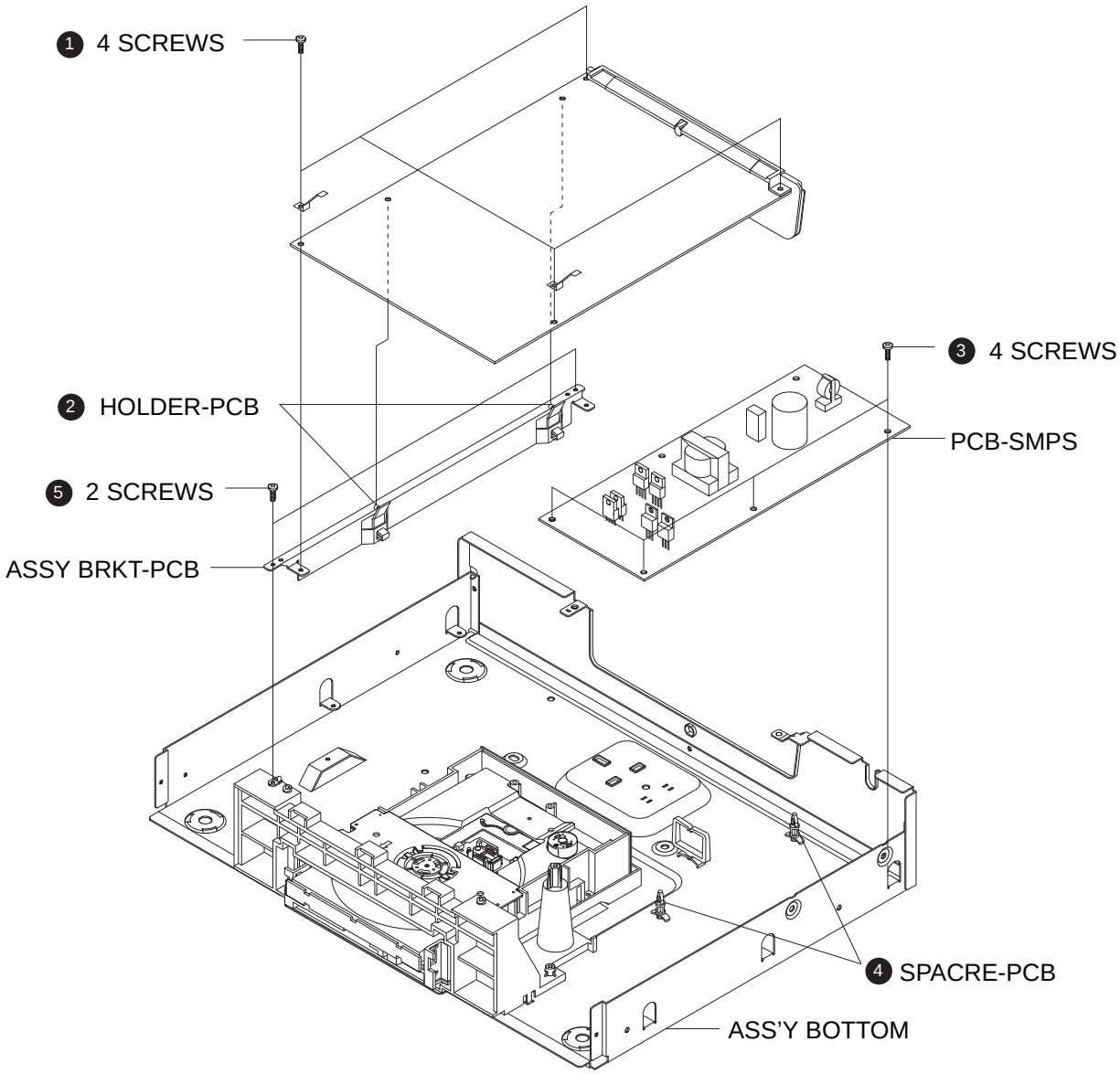


Fig. 5-4

5-1-5 Deck, Frame-chassis

1. Remove 4 screws ❶ from the deck and lift it up.
2. Remove 4 screws ❷ from the frame-chassis and lift it up.

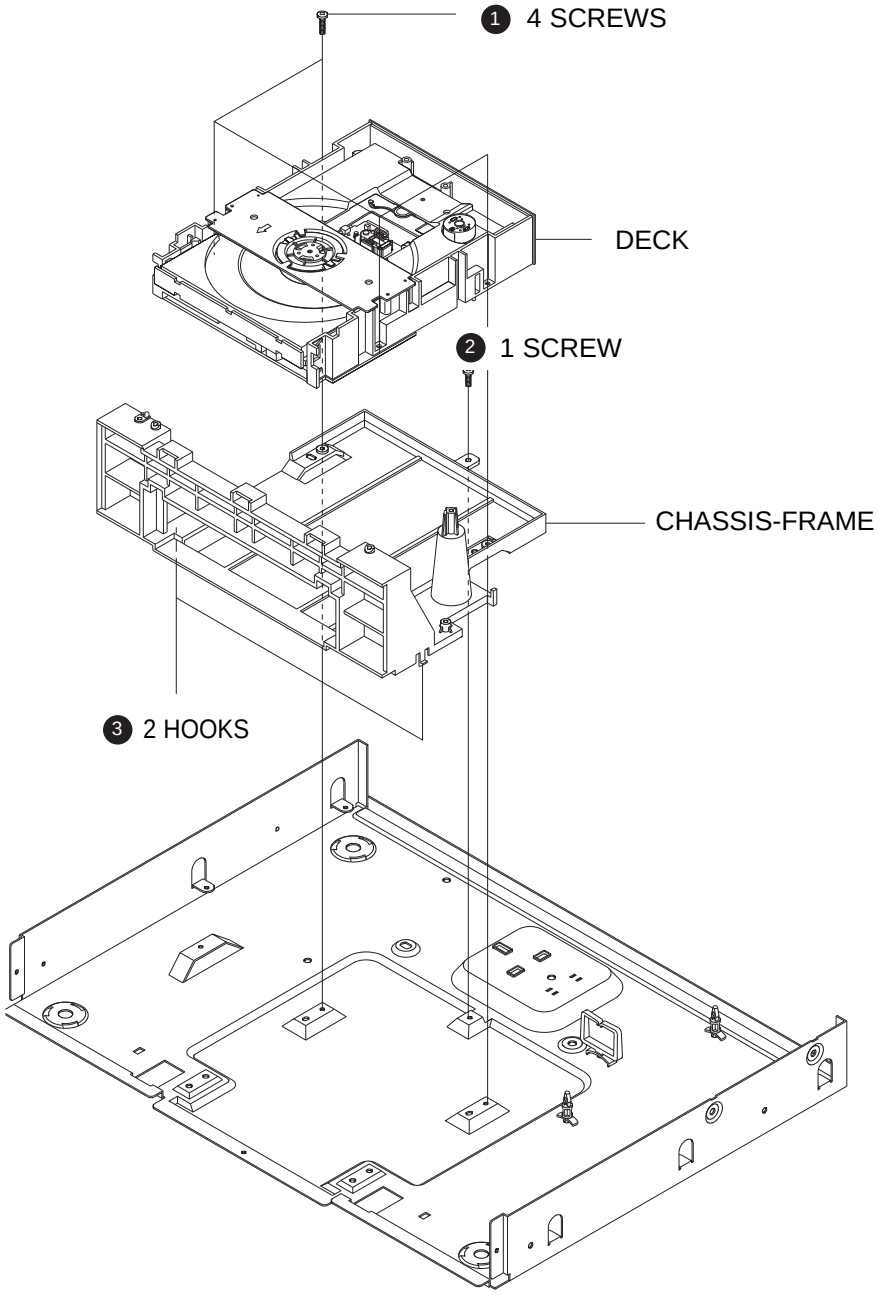


Fig. 5-5

5-2 PCB Locations

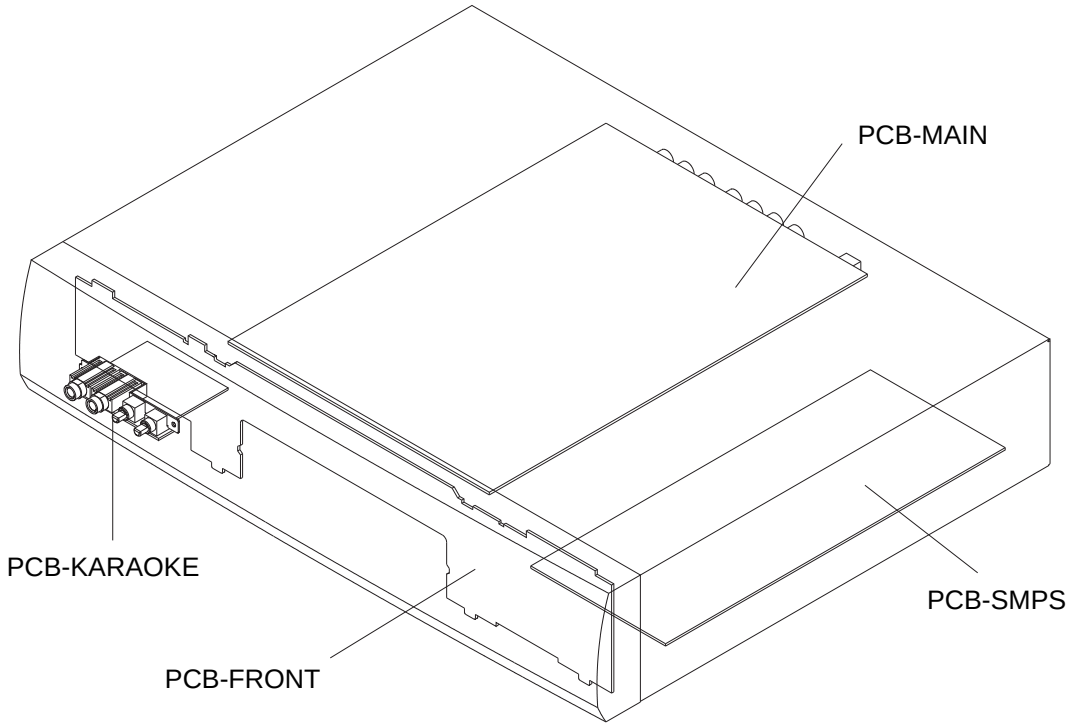


Fig. 5-6

5-3 Connector Connection

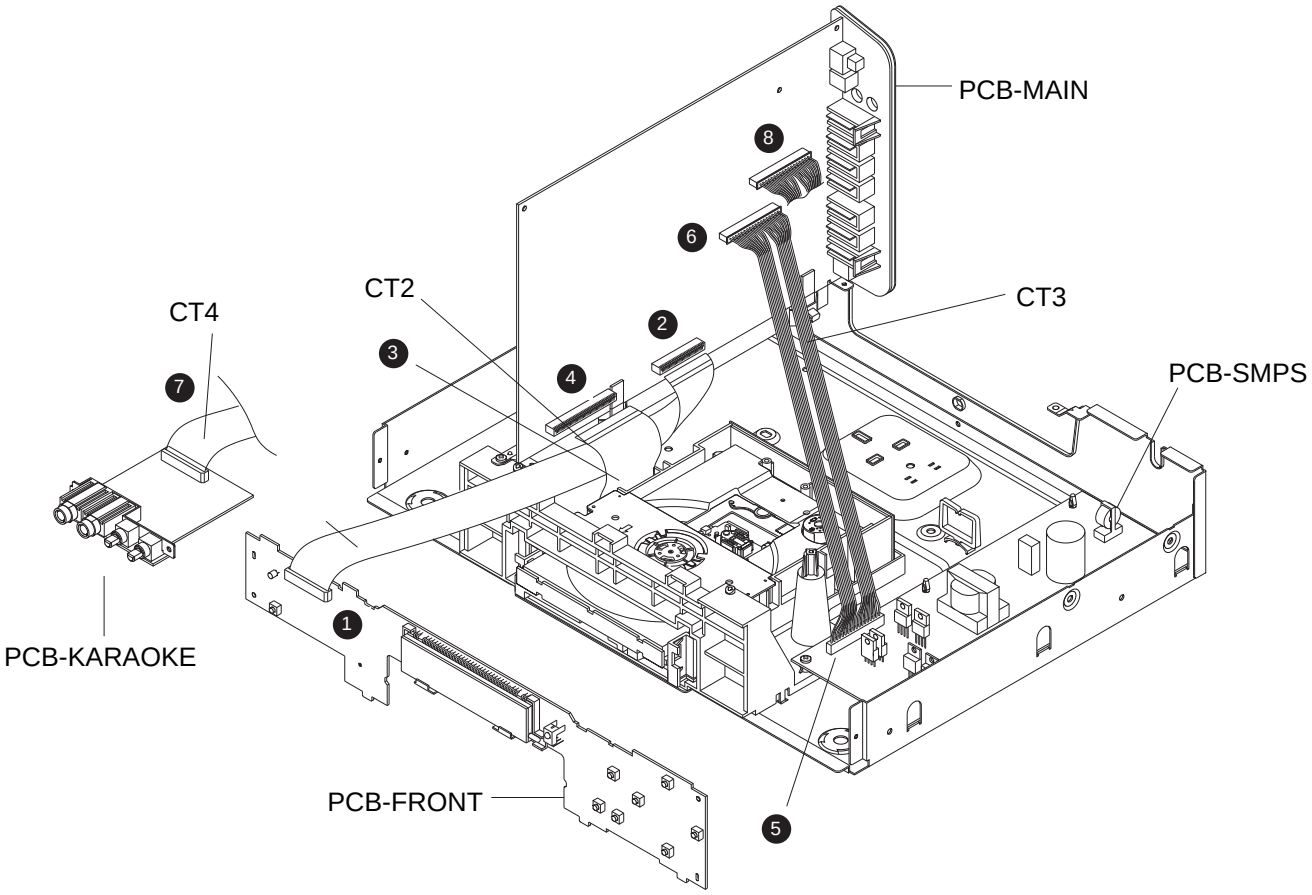


Fig. 5-7

No.	Connector wafer No.	Direction	Connector wafer No.
1	FJP1	CT1 → PCB-MAIN	DCN1
2	DCN1	PCB-FRONT	FJP1
3	CN5	CT2 → PCB-MAIN	CN1
4	CN1	DECK	CN5
5	PCN02	CT3 → PCB-MAIN	PCN1
6	PCN1	PCB-SMPS	PCN02
7	KCN1	CT4 → PCB-MAIN	KCN1
8	KCN1	PCB-KARAOKE	KCN1

5-4 Deck Disassembly

5-4-1 Tray

1. Remove 2 screws ❶ and lift up the ass'y-deck clamper ❷ .
2. Insert a clip into Emergency hole, and push Gear-Cam Center ❸ . When the tray ❹ comes out a little, pull it in direction of arrow "C".
3. Pull the tray ❹ to disassemble, while simultaneously pushing the hook ❺ , ❻ in direction of arrow "A", "B".

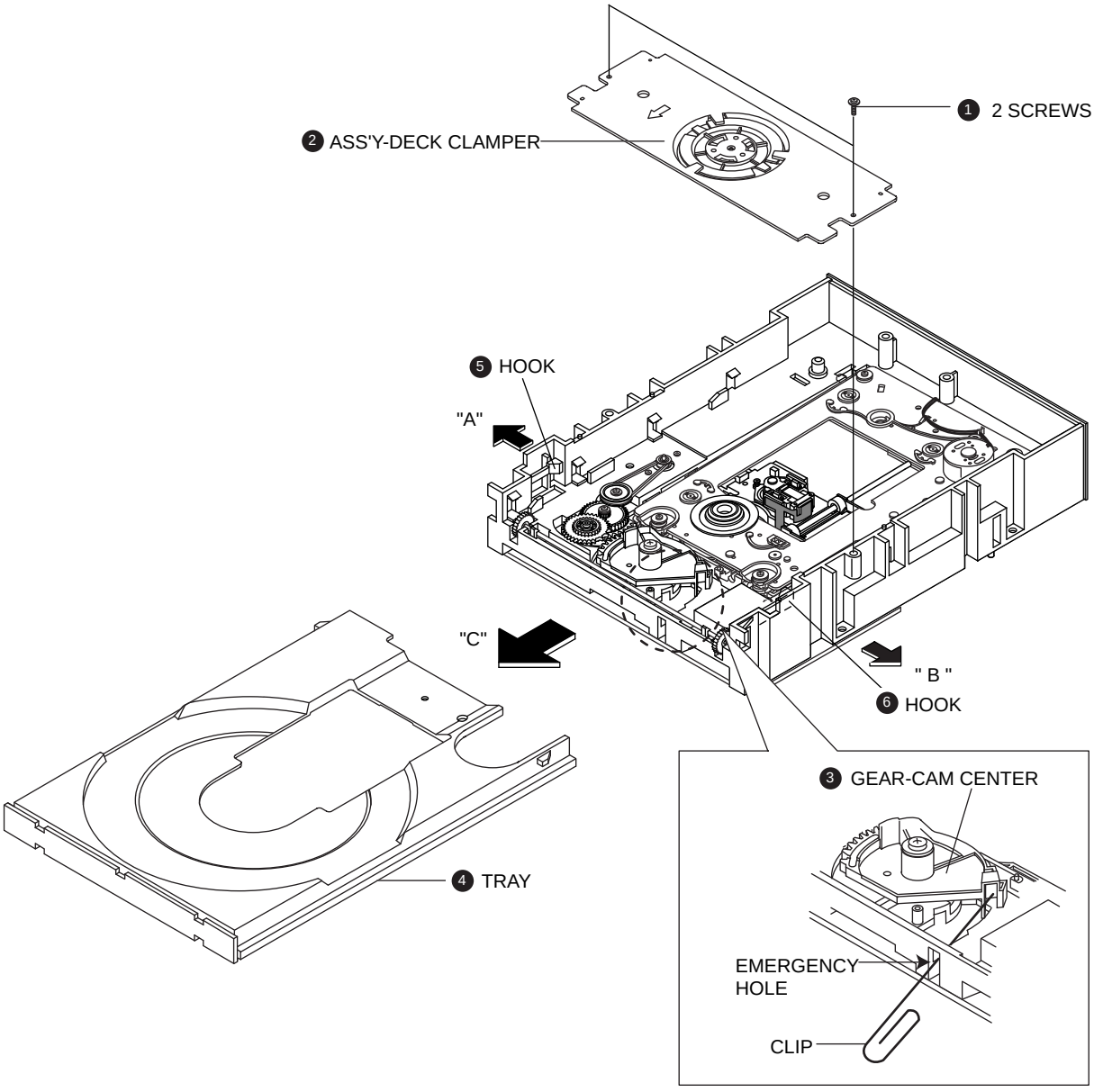


Fig. 5-8

5-4-2 Ass'y-Deck DVD

1. Remove 2 screws ❶ and disassemble the ass'y-PCB deck ❷ .
2. Disassemble the ass'y-deck DVD ❹ in direction of arrow "B", while simultaneously pushing the hook ❸ in direction of arrow "A".

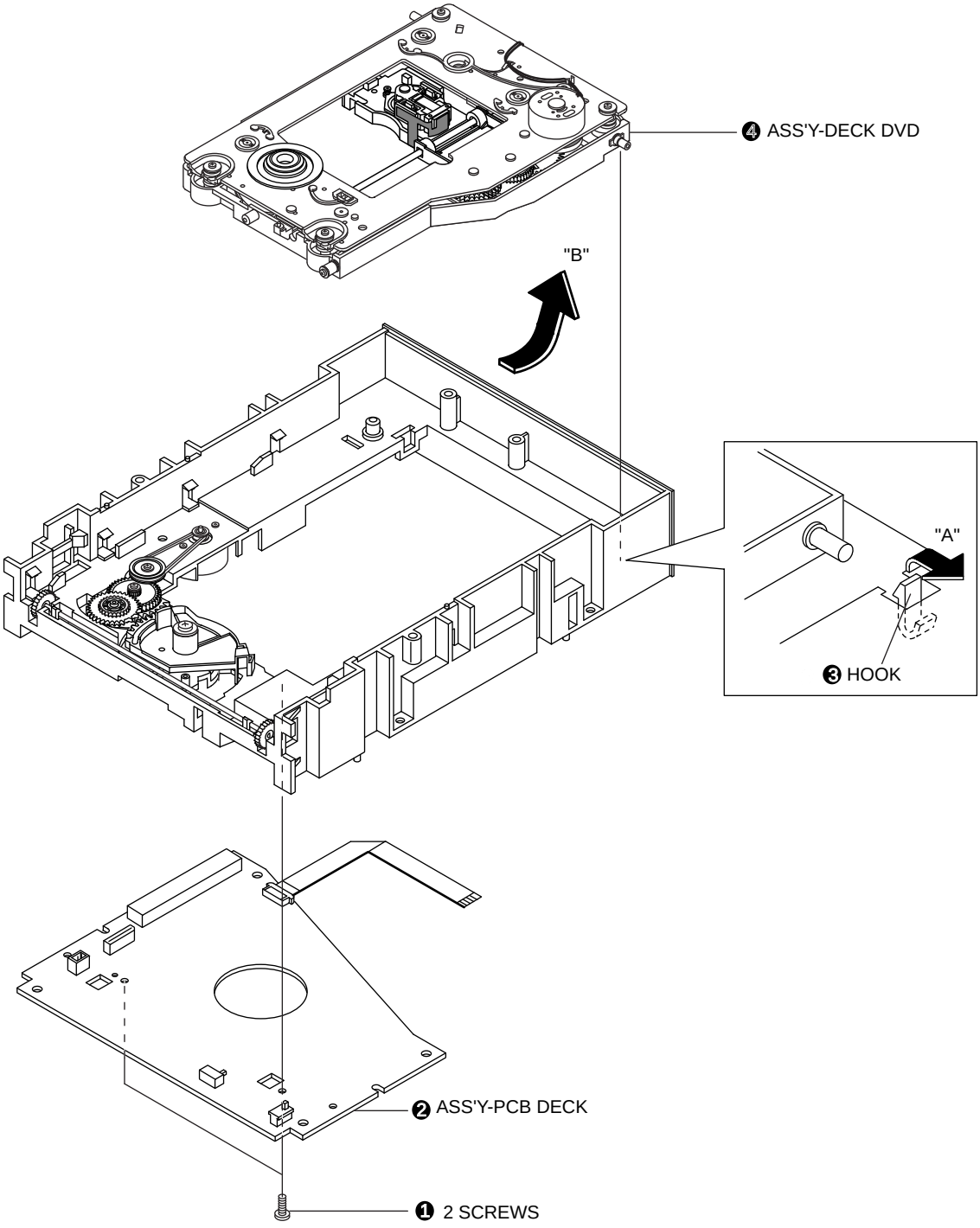


Fig. 5-9

5-4-3 Chassis-Main parts

1. Lift up the gear-tray ❶ , remove 1 screw ❷ and lift up the gear-cam center ❸ .
2. Lift up the belt-pulley ❹ , remove 1 screw ❺ and lift up the pulley-gear ❻ .
3. Remove 1 screw ❼ and lift up the gear-tray A ❽ and gear-cam sub ❾ .
4. Remove 2 screws ❿ and disassemble the ass'y-motor load ⓫ .
5. Remove 1 screw ⓬ and disassemble the lever-open S/W ⓭ .
6. Lift up the shaft-syncro ⓮ and remove the 2 gear-syncro ⓯ in both directions.

Assembling : Adjust the shaft end of motor-feed so that it is exactly equal to the height of the hump in gear pole of ass'y-gear magnet.

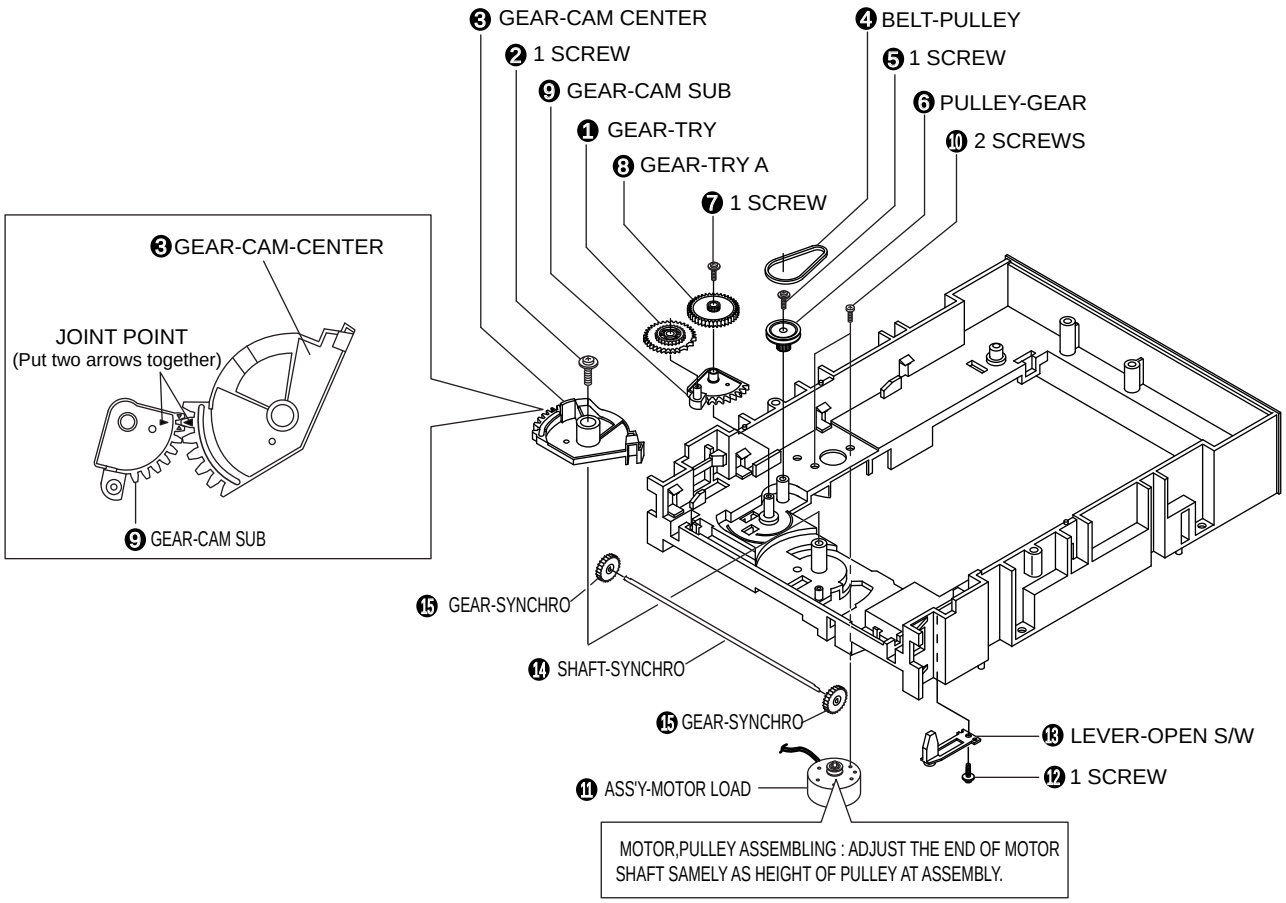


Fig. 5-10

5-4-4 Ass'y deck

1. Remove 4 screws ❶ .
2. Lift up the ass'y-deck ❷ .

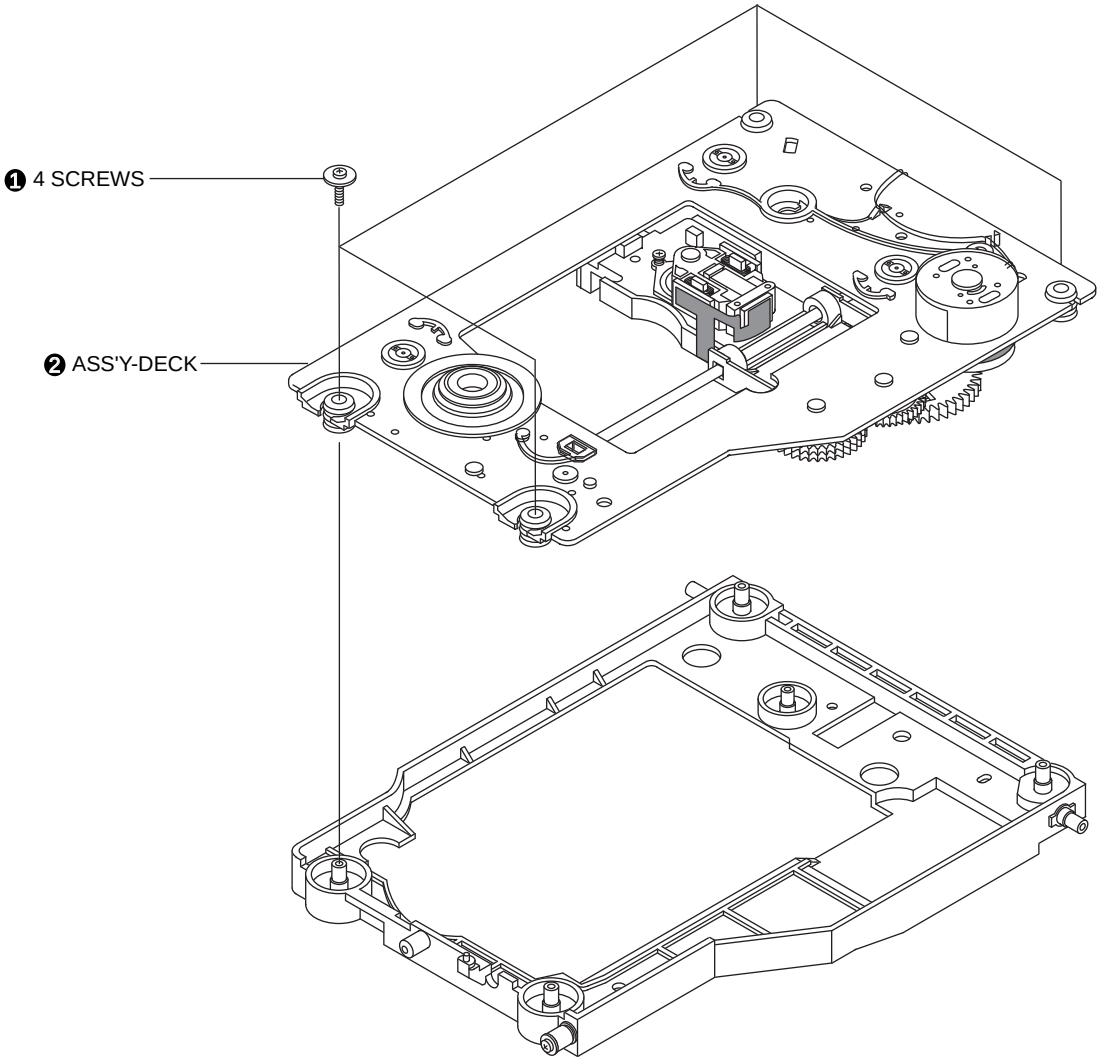


Fig. 5-11

5-4-5 Ass'y-Deck parts

1. Remove 3 screws ❶ and disassemble 3 holder-cams ❷ .
2. Disassemble the rack-slide ❼ and ass'y-pickup ❺, 2scrrws ❻ while simultaneously removing the shaft-P/U-L ❸, shaft-P/U-R ❹ .
3. Remove 3 screws ❽ and disassemble the ass'y-motor spind le ❾.
4. Remove the washer-plain ❿ and disassemble the ass'y-gear feed AU/AL ⓫.
5. Remove the washer-plain ⓬ and disassemble the gear-feed B ⓭.
6. Remove the washer-plain ⓮ and disassemble the ass'y-gear feed CU/CL ⓯.
7. Disassemble the ass'y-gear magnet ⓰.
8. Remove 2 screws ⓰ and disassemble the ass'y-PCB hall sensor ⓱ .
9. Remove 1 screw ⓲ and disassemble the motor-feed ⓳.

Assembling : Adjsut the shaft end of motor-feed ❶ so that it is exactly equal to the height of the hump in gear pole of ass'y-gear magnet.

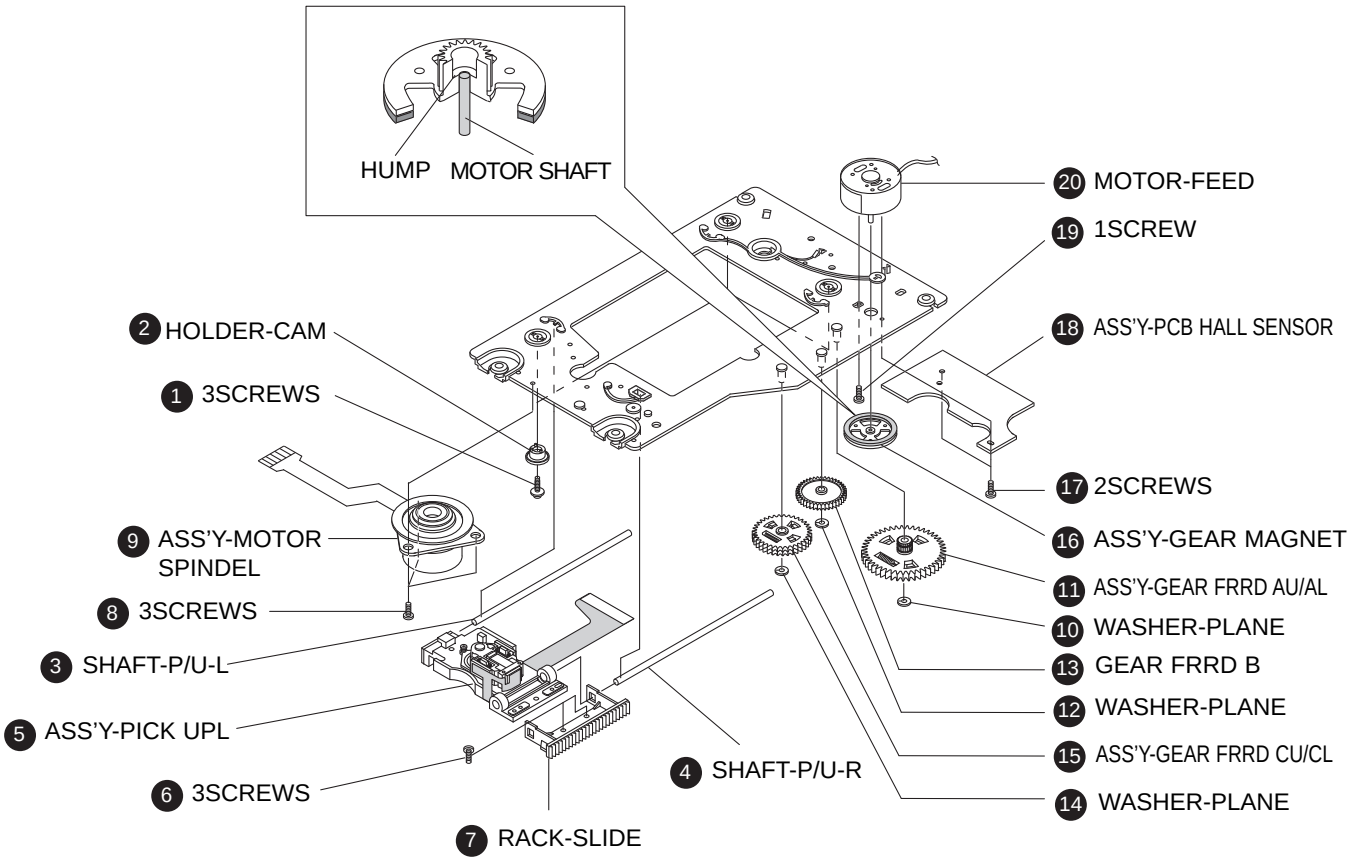


Fig. 5-12

7. Circuit Descriptions

7-1 SMPS

7-1-1 Comparison between linear power supply and SMPS

7-1-1(a) LINEAR

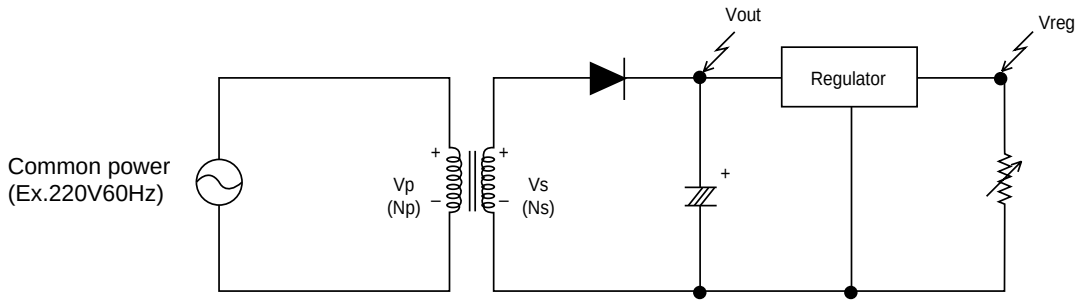
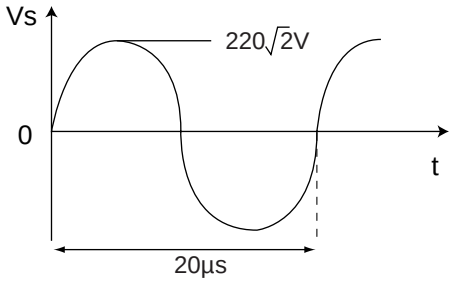


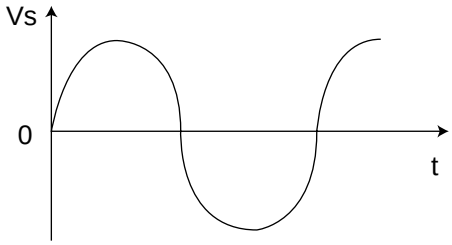
Fig. 7-1 Linear Power Supply

◆ Waveform/Description



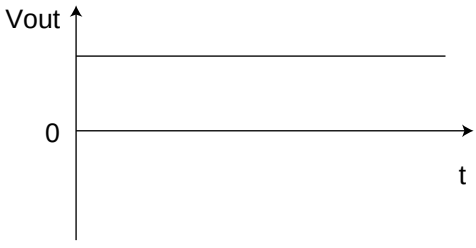
Input : Common power to transformer(Vp)

Fig. 7-2



The output Vs of transformer is determined by the ratio of 1st Np and 2st Ns.
Vs = (Ns/Np) x Vp

Fig. 7-3



Vout is output (DC) by diode and condensor.

Fig. 7-4

◆ Advantages and disadvantages of linear power supply

a. Advantages :
Little noise because the output waveform of transformer is sine wave.

b. Disadvantages :
» Additional margin is required because Vs is changed (depending on power source). (The regulator loss is caused by margin design).
» Greater core size and condensor capacity are needed, because the transformer works on a single power frequency.

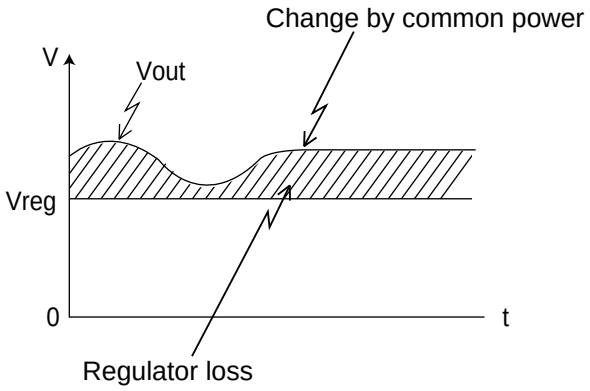


Fig. 7-5

7-1-1(B) SMPS(PULSE WIDTH MODULATION METHOD)

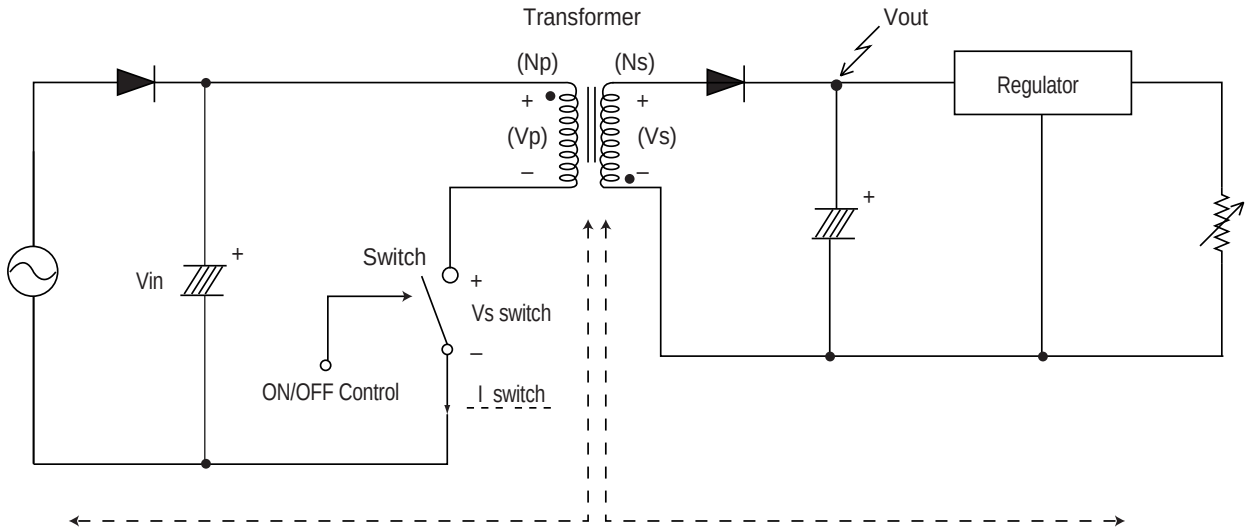


Fig. 7-6 SMPS

◆ Terms

- 1st : Common power input to 1st winding.
- 2nd : Circuit followings output winding of transformer.
- f(Frequency) : Switching frequency(T : Switching cycle)
- Duty : (Ton/T) x 100

7-1-2 Circuit description(FLY-BACK PWM(Pulse Width Modulation) control)

7-1-2(a) AC power rectification/smoothing terminal

- PD01,PD02,PD03,PD04 : Convert AC power to DC(Wave rectification)
- PO03 : Smooth the voltage converted to DC(Refer to VIN of Fig. 7-7)
- PC01, PC02, PC10, PC11, PC12, PC13, PL01, PL02, PL03 : Noise removal at power input/output
- PVA1 : SMPS protection at power surge input
  (PVA1 pattern open is to remove noise)
- PR10 : Rush current limit resistance at the moment of power cord insertion.
  » Rush current = (AC input voltage x 1.414 - Diode drop voltage) / Pattern resistance + PL02,01 resistance + PC10 resistance + PR10) (AC230V based : approx. 26A)
  » Without PR10, the bridge diode might be damaged as the rush current increases.

7-1-2(b) SNUBBER circuit : PR15, PR16, PC04, PD05, PD11, PR17

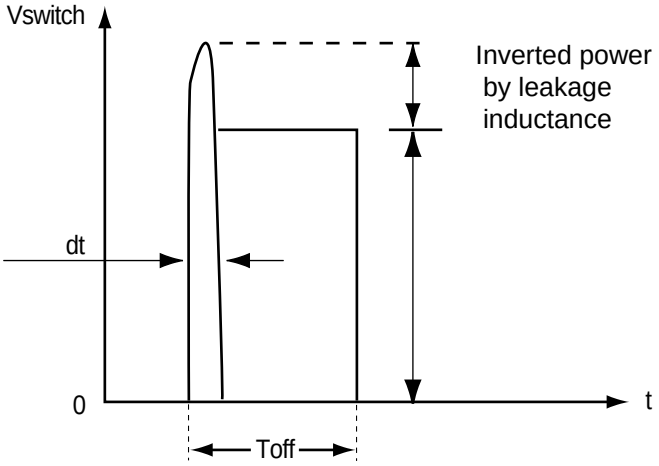


Fig. 7-7

- Prevent residual high voltage at the terminals of switch during switch off/Suppress noise.
  High inverted power occurs at switch (PIC1) off, because of the 1st winding of transformer:
  (V=L1xdi/dt. LI : Leakage Induction)
  A very high residual voltage exists on both terminals of PIC1 because dt is a very short.

- SNUBBER circuit protects PIC1 from damage through leakage voltage suppression by RC, (Charges the leakage voltage to PD11 and PC04, and discharges to PR15 and PR16).
- PC05, PL17 : For noise removal

7-1-2(c) PIC1 Vcc circuit

- PR11, PR12, PR13, PR14 : PIC1 driving resistance (PIC1 works through driving resistance at power cord in)
- PIC1 Vcc : PR18, PD12, PC06

1) Use the output of transformer as Vcc, because the current starts to flow into transformer while PIC1 is active.
2) Rectify to PD12 and smooth to PC06.
3) Use the output of transformer as PIC1 Vcc : The loads are different before and after PIC1 driving.
   (Vcc of PIC1 decreases below OFF voltage, using only the resistance due to load increase after PIC1 driving.)

7-1-2(d) Feedback control circuit

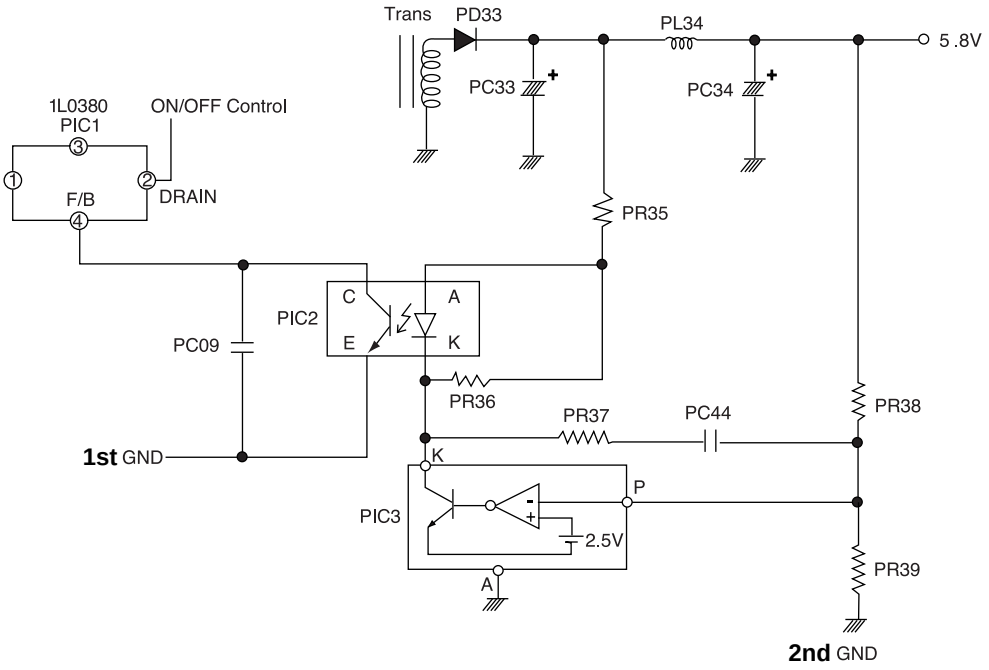


Fig. 7-8

- F/B terminal of PIC1 determines output duty cycle.
- C-E(Collector-Emitter) of PIC2 and F/B potential of PIC1 are same.

◆ Operation descriptions

a. Internal OP-Amp '+' base potential of PIC3 is 2.5V and external "-" input potential is connected with PR38 and PR39 to maintain Vout of 5.8V. (Vout = ((PR36 x PR39) / PR39) x 2.5V)
b. If load of 5.8 V terminal increases(or AC input voltage decreases) and Vout decreases below 5.8V, then : PIC3 'P' potential down below 2.5V --> PIC3 A-K of base current down --> PIC3 of A-K current down --> PIC2 Diode current down --> PIC2 C-E current down --> PIC2 C-E voltage up --> PIC1 F/B voltage up --> Out Duty up --> Transformer 1st current up --> Transformer 1st power up --> Vout up --> Maintain Vout 5.8V
c. If load of 5.8 V terminal decreases(or AC input voltage rises) and Vout rises above 5.8V, then : Reverse sequence of the above description Æ Duty down Æ Vout down Æ Maintain 5.8V (i.e., the feedback to maintains 5.8V).
   - PR35, PR36 : Reduce 5.8V overshoot
   - PR37, PC44 : Prevent PIC3 oscillation(for phase correction)
   - PC09 : Adjust feedback response rate

7-1-3 Internal block diagram

7-1-3(a). Internal block diagram of SMPS circuit

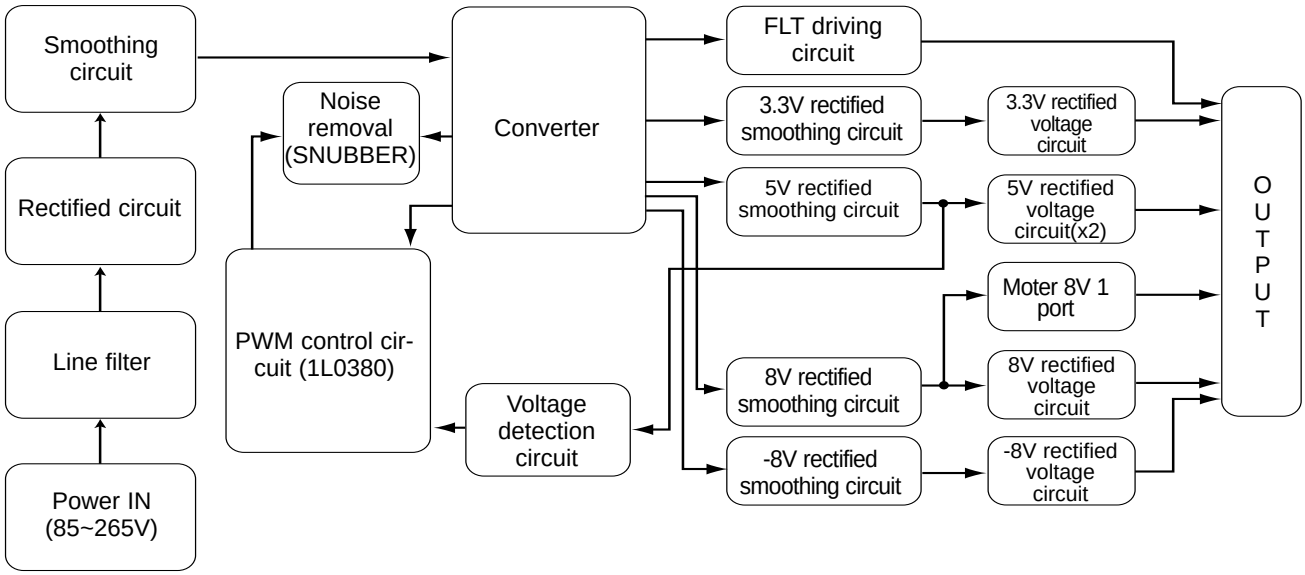


Fig. 7-9

7-1-3(b). PIC1(1L0380) internal block diagram

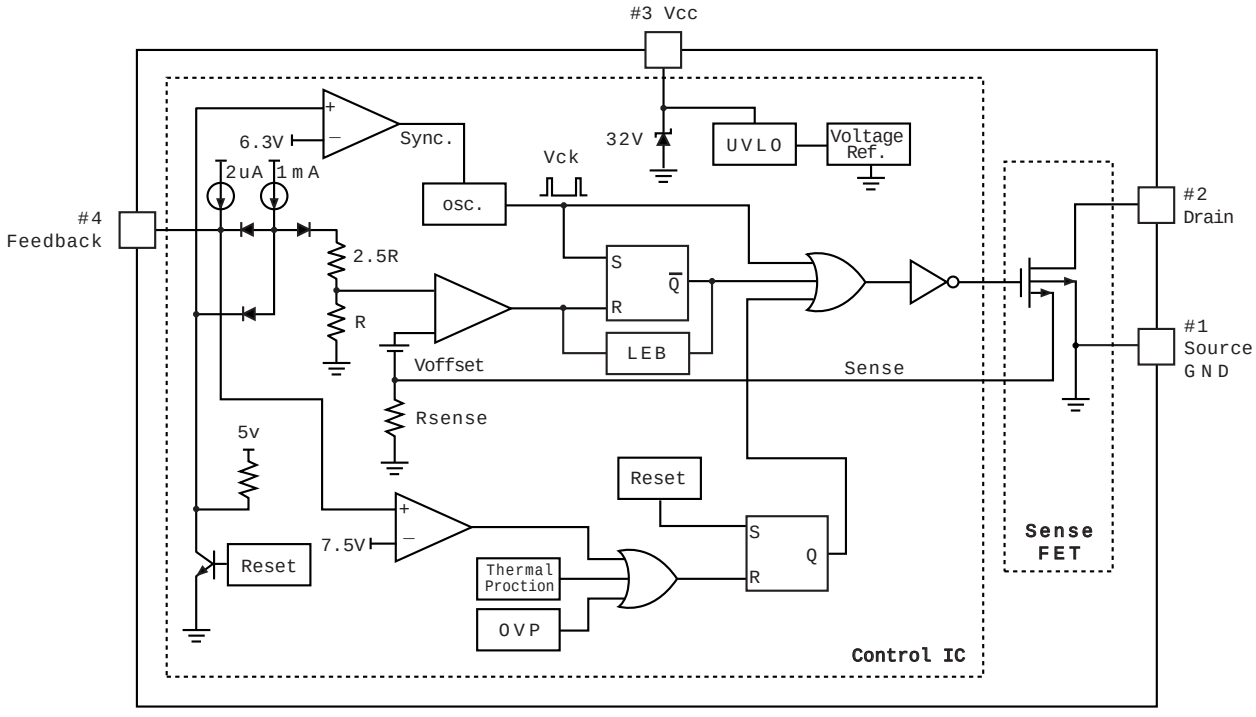


Fig. 7-10

7-2 RF circuit description

7-2-1 RIC1(TA1236F)

TA1236F is combined with TA1253FN, TC9240F and TC90A19F as bipolar IC developed for DVD SERVO system. Main features include DVD waveform equalizing, CD waveform equalizing, focus error signal generation, 3-beam tracking error signal generation, laser power control, etc. after receiving the pick-up output converted into I/V.

7-2-1(a) Basic potentiometer

TA1236F uses a single power method and each circuit is based on V_{REF} of 2.1V. Note : symmetrical about GND for V_{REF} because V_{REF}(pin20) terminal is needed for IC, which uses the peripheral V_{REF} and $2V_{REF}$ output(pin18).

7-2-1(b) RF signal

Fig. 7-11 shows the flow of signal generated by the pick-up.
A, B, C, D signals detected from pick-up are converted in to RF signal(A+B+C+D) via RF summing AMP.
RF signal is inputted to RFN(pin55) among input terminals and RFP(pin54) is used for AC ground.

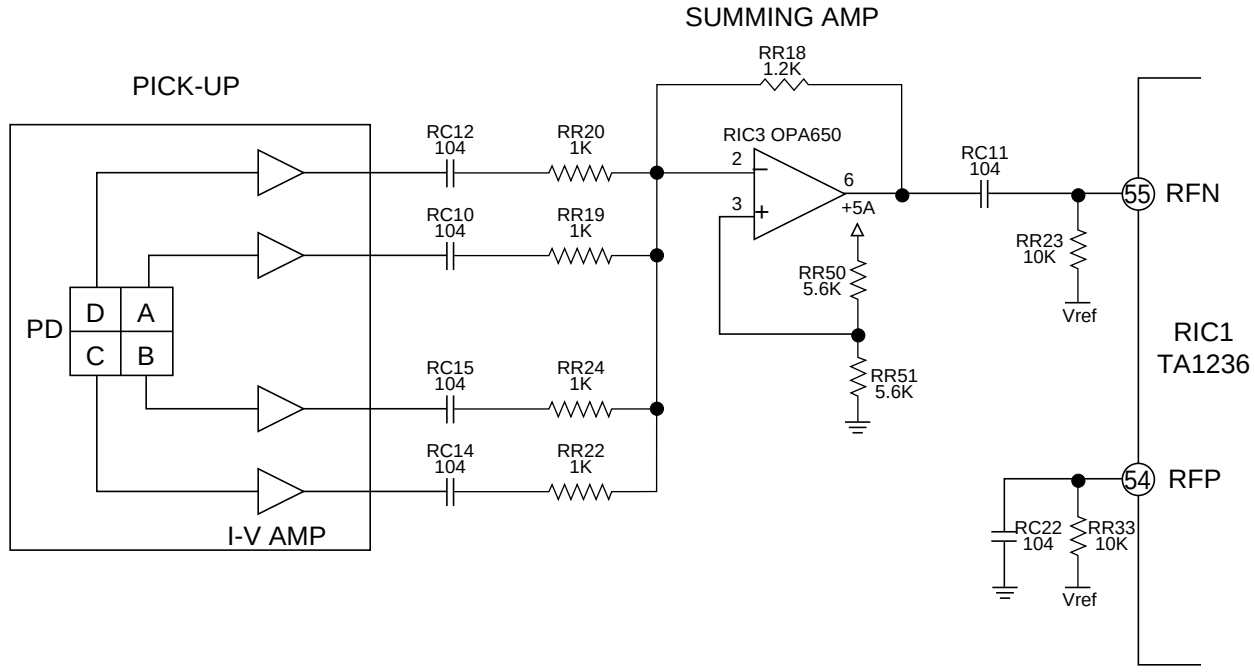


Fig. 7-11

Fig. 7-12 shows the waveform-equalizing block diagram for the RF signal.
It outputs to EQout(pin 46) terminal by initially changing switching AMP gain of DVD and CD, and then adjusting the level in VCA. It controls VCA gain by means of RF gain(pin 48) and interfaces with PWM signal, (output from RFGC terminal of TC9420F, via low-pass filter to constitute a loop for adjustment of constant amplitude). The gain in EQout is 1.0 for DVD and 1.67 for CD.

EQout terminal is connected with EQin(pin 45) externally, and inputs into DVD EQ and CD EQ(Waveform equalizing circuit).

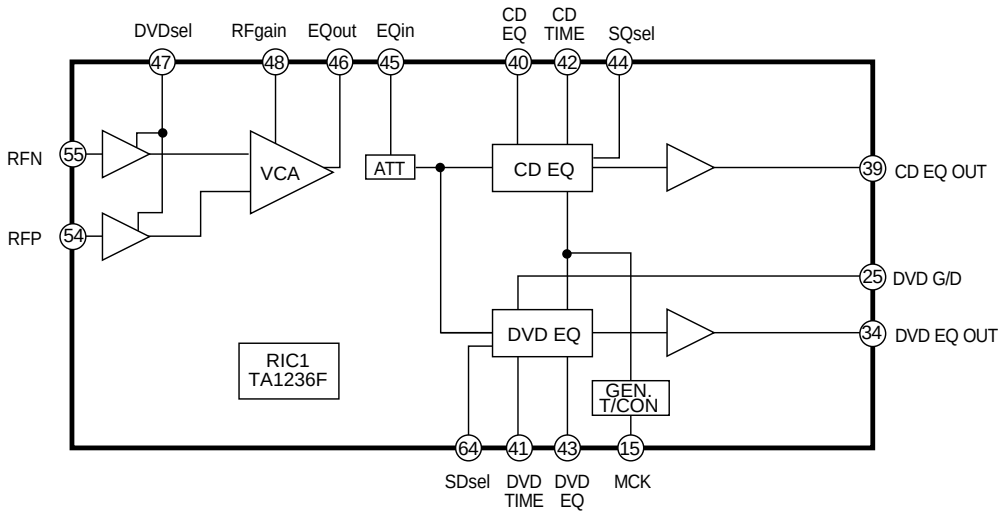


Fig. 7-12

The control parameters of DVD EQ and CD EQ are as follows.

1) DVD EQ control parameter

- DVDEQ(pin 43) : Changes the gain of peak frequency with EQ frequency characteristic. Convert PWM signal, output from TC90A19F, into DC via low-pass filter.
- DVDTIME(pin 41) : Changes the peak frequency with EQ frequency characteristic. Convert PWM signal, output from TC90A19F, into DC via low-pass filter.
- S/Dse1(pin 64) : Changes the peak frequency (like DVD TIME) as 2d control. (Switched according to regeneration speed ratio of single/double layer).
- MCK(pin 15) : Input the base clock and link the peak frequency with it. The amplitude of MCK might be small (500mVp-p).
- DVDGD(pin 25) : Changes the group delay characteristics with EQ frequency characteristic.

2) CD EQ control parameter

- CD EQ(pin 40) : Changes the gain of peak frequency with EQ frequency characteristic. The constant DC is supplied to a resistive voltage divider.
- CD TIME(pin 42) : Changes the peak frequency with EQ frequency characteristic. The constant DC is supplied to a resistive voltage divider.
- S/Qse1(pin 44) : Changes the peak frequency (such as CD TIME) as 2d control. (Switched according to play linear velocity ratio of quadruple/single rate. Set to '0' because only one rate is vaild in this system).

CD and DVD signals are equalized according to the above control parameters ,and then output to CD EQ OUT (pin39) and DVD EQ OUT (pin34). Then, CD signal is transferred to TC9420F (pin 38), DVD signal is sent to TC90A19F(pin 50) and detected.

7-3 System control

7-3-1 Outline

The main micom peripheral circuit is composed of 16bit Micom(MIC1,TMP93CS41), 2M PROM (MIC2,AM27C020 for Microcode and data save, 1M SRAM(MIC3, KM681000) for data read/write on running, 512 byte EEPROM (MIC5, IS24C02)for permanent storage of data needed at power off, MIC4(74AC573) to latch only address in the bus where address and data are mixed, address decoder (MIC6, 74HC00) for selection of external device chip and 20MHz clock oscillator for micom operation. The micom(MIC1, TMP93CS41) mounted in main board analizes the key commands of front panel or instructions of remote control through communication with micom(FIC1, LC86P6232) of front and controls the devices on board to execute the corresponding commands after initializing the devices connected with micom on board at power on.

7-3-2 Block diagram

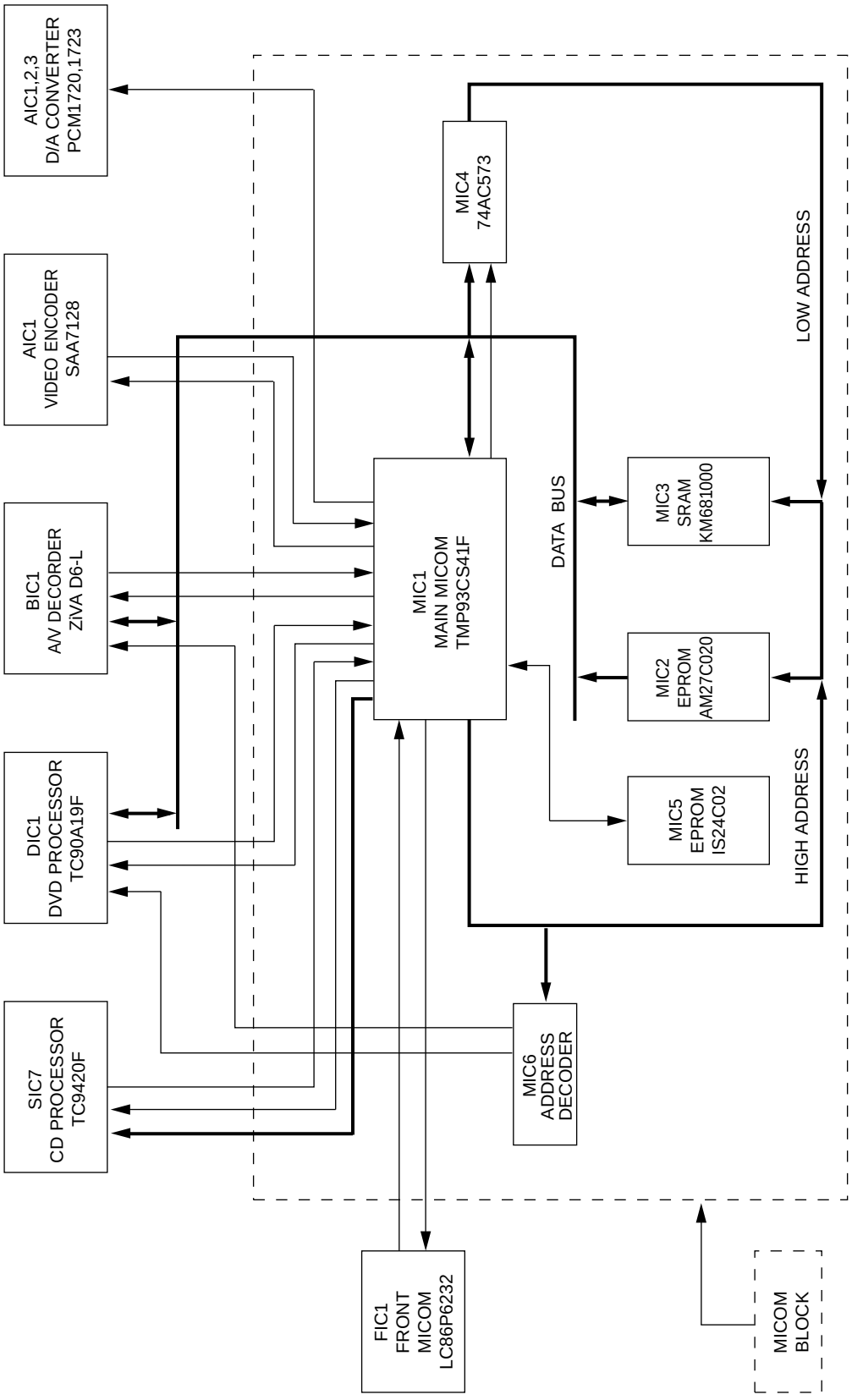
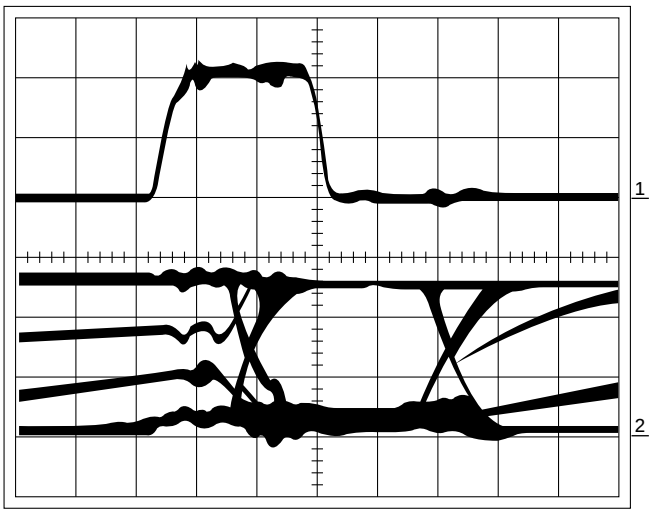


Fig.7-13

7-3-3 Waveform description

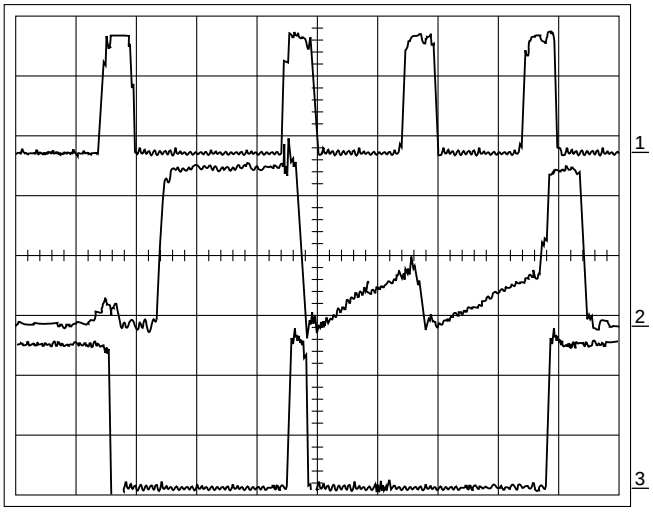
The setup time is approx. 18 nsec. at falling edge of ALE(Address Latch Enable) signal, which has enough hold time.
At power of 5V, the min. setup time of MIC4(TC74AC573) is 5 nsec, and min. hold time is 3 nsec. It can be known that data input condition meets setup time and hold time. The eye part of input data in falling edge of ALE signal corresponds to address on the bus where address and data are mixed.



- CH1 : ALE
  (MIC4-11, Address Latch Enable Signal)
- CH2 : HAD0-9
  (Input data of MIC4, Common bus data)

Fig. 7-14

The inclining and rising part indicate floating range of data bus.
That is, there is no operational problem because micom is time area not to access any devices sharing a common bus. The waveform is shown to incline and rise by pull-up resistance and capacitance on PCB pattern.
When micom accesses each device sharing bus, it falls the chip select signal of corresponding chip to (CS1 : MIC2-22, CS2:MIC3-22, /DPCS:MIC6-76, /DVD1CS:BIC1-175) 0 (Low) before trial. So to speak, the bus is used by time-division as shown in Fig 7-16, 17. Two and more devices can't be accessed simultaneously.



- CH1 : ALE
  (MIC4-11, Address Latch Enable Signal)
- CH2 : HAD0-7 (MIC4-2 to 9, Input data)
- CH3 : HA0-7 (MIC4-19 to 12, Output data)

Fig. 7-15

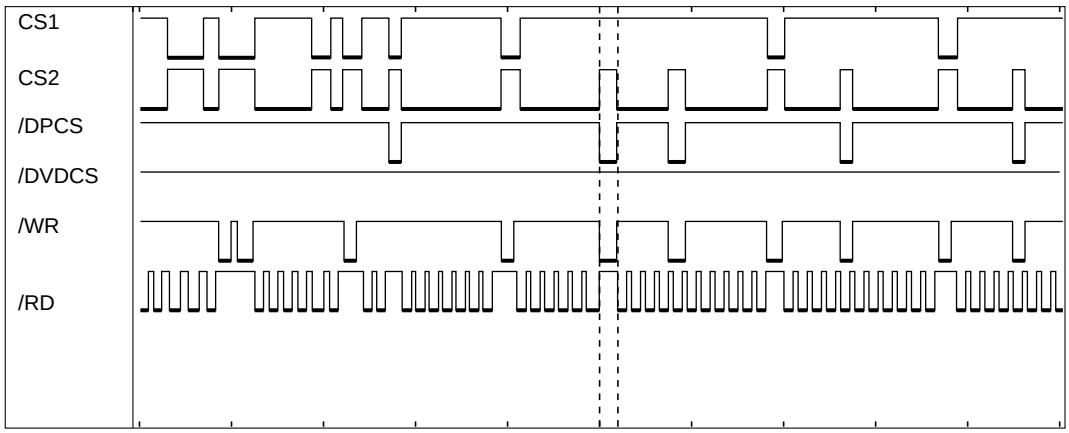


Fig. 7-16

- CH1 : CS1 (MIC3-22, SRAM CHIP SELECT)
- CH2 : CS2 (MIC2-22, EPROM CHIP SELECT)
- CH3 : DPCS (DIC1-12, DVD PROCESSOR CHIP SELECT)
- CH4 : DVDCS (BIC1-175, A/V DECODER CHIP SELECT)
- CH5 : WR (MIC1-73, MICOM OUTPUT WRITE SIGNAL)
- CH6 : RD (MIC1-72, MICOM OUTPUT READ SIGNAL

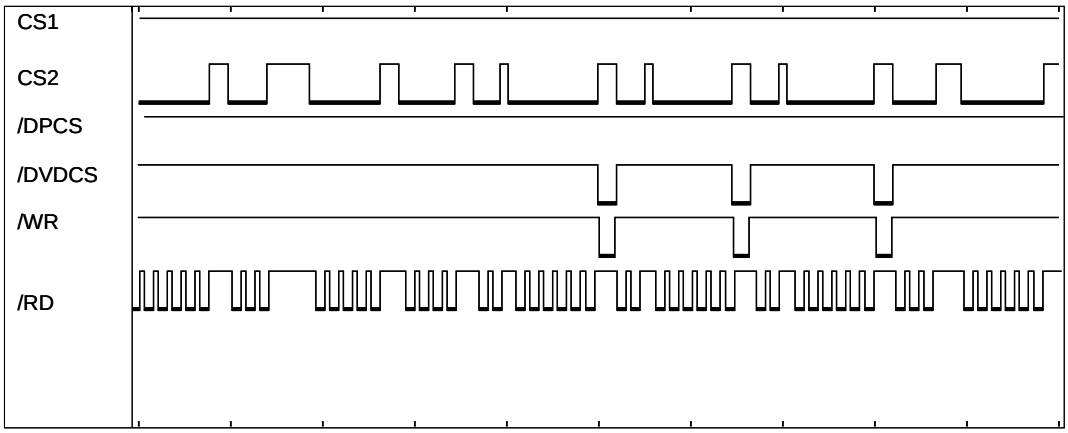


Fig. 7-17

- CH1 : CS1 (MIC3-22, SRAM CHIP SELECT)
- CH2 : CS2 (MIC2-22, EPROM CHIP SELECT)
- CH3 : DPCS (DIC1-12 DVD PROCESSOR CHIP SELECT)
- CH4 : DVDCS (BIC1-175, A/V DECODER CHIP SELECT)
- CH5 : WR (MIC1-73, MICOM OUTPUT WRITE SIGNAL)
- CH6 : RD (MIC1-72, MICOM OUTPUT READ SIGNAL)

7-4 DVD Data Processor

7-4-1 Outline

DIC1(TC90A19F) performs PLL(Phase Locked Loop), Sync detection, demodulation and error correction after converting RF signal inputted at DVD regeneration into digital data.
TC90A19F uses external memory(DIC2, 4M DRAM, KM48C512BLJ) as buffer as well as for error correction and carries out Variable Bit Rate transfer function. VBR function uses the external buffer as buffer to absorb the difference of transfer rate occurring because the transfer rate of disc playback is faster than data transfer rate demanded by MPEG decoder(Video/Audio Signal Process Chip).
In case of general disc refresh, the memory is almost filled up periodically. It is because Write rate to memory after disc playback and signal process is faster than Read rate of MPEG decoder. When the memory is filled, this status is reported by interrupt to main micom, which controls the servo to kick back the pick-up to the previous track after memorizing the last data read from disc until now. It takes some times to jump to the previous track and return to the original position(jump location) again. The memory will have an empty space because MPEG decoder reads out data of memory.
When the memory has an empty space, where data can be processed and written and the pick-up correctly gets to the original location(before kick back location) again, it reads data again and avoids the interrupt of data read previously.
The basic operation repeats to perform (disc data read --> memory full --> move pick-up to previous track --> disc data read --> memory full --> move pick-up to previous track) as described above.

7-4-2 DVD DATA PROCESSOR BLOCK DIAGRAM

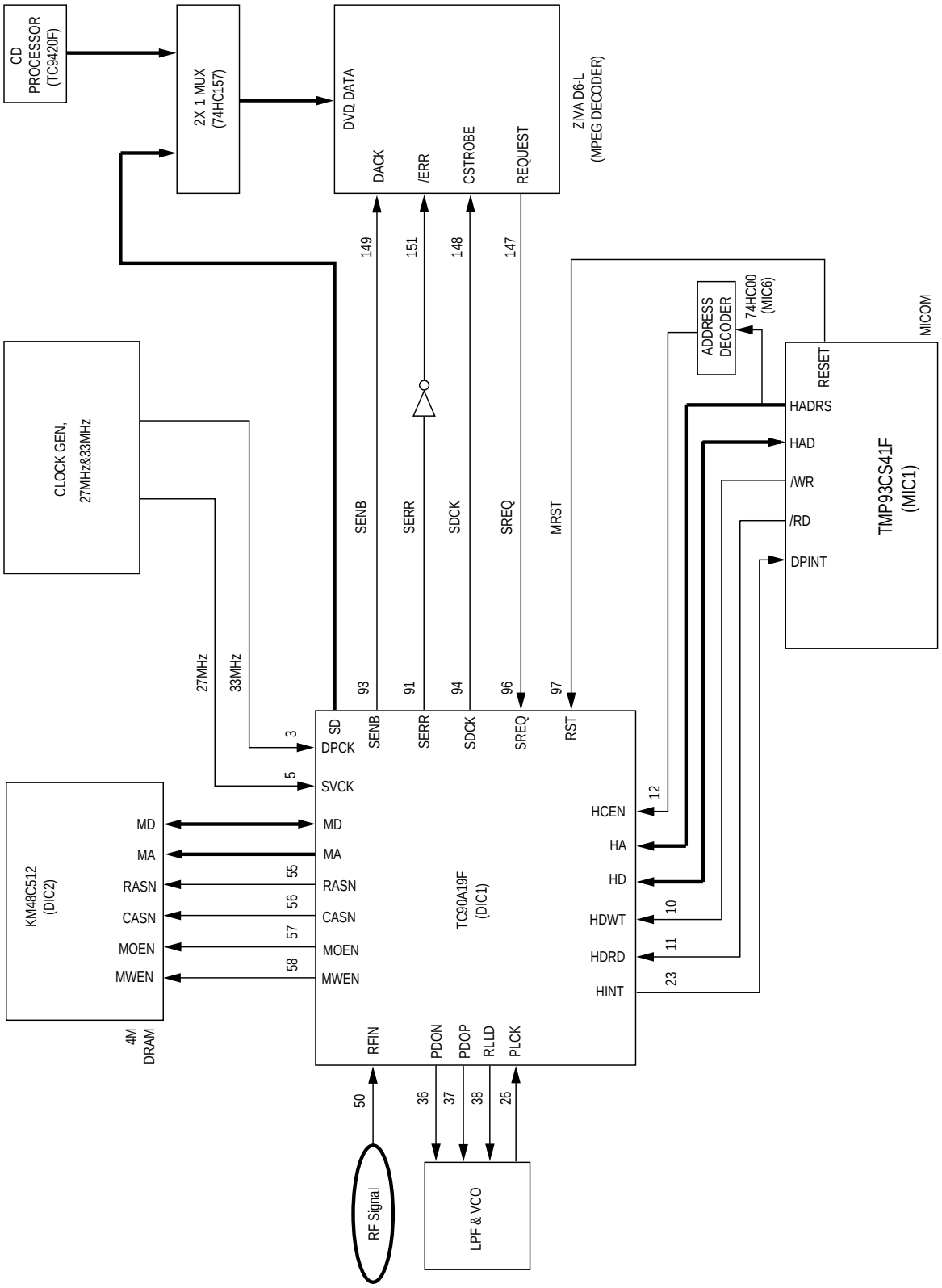
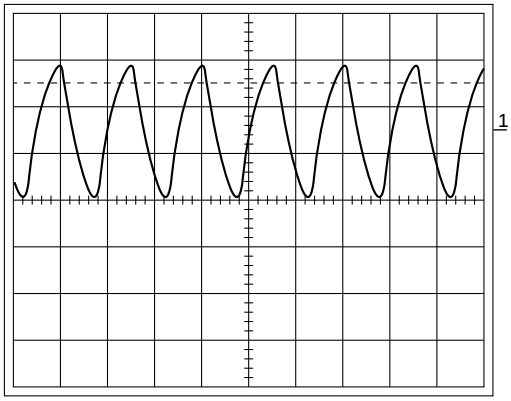


Fig. 7-18

7-4-3 Waveform description

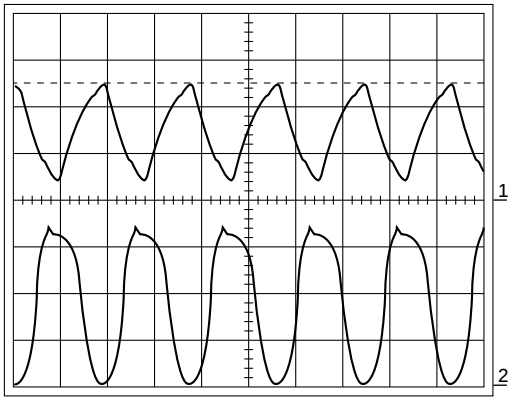
It is used for internal digital signal process as 33MHz clock input waveform of DIC1 (TC90A19F) and carries out swing in 1.4V level on the basis of DC level 1.65V.



• CH1 : DPCK1(DIC1-3, 33MHz input clock)

Fig. 7-19

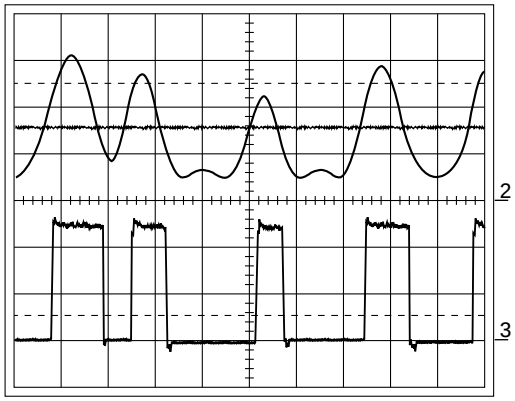
It is used for PLL and CLV control as 27MHz servo clock input and output waveform of DIC1. The input swings in approx. 2V of amplitude and the output swings in 3.3V.



• CH1 : SVCKI (DIC1-5)
• CH2 : SVCKO (DIC1-6)

Fig. 7-20

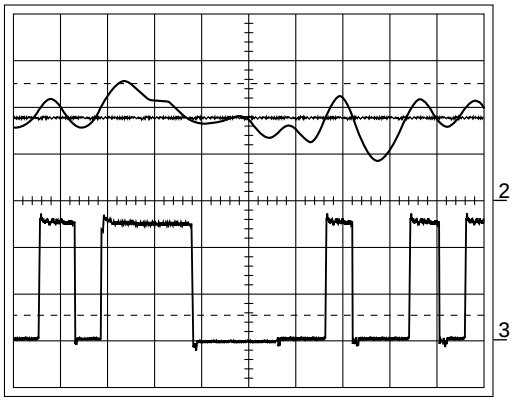
CH1 is RF signal waveform inputted to DIC1 and inputted with 2.5V of amplitude on the basis of approx. 1.65V level. If RF signal is higher than slice level, CH2 of slice level is cut logic “1”(HIGH) and if lower, logic “0”(LOW) thus converted into digital data. CH3 indicates a waveform that RF signal is cut by slice level and converted into digital data.



• CH1 : RFIN(DIC1-50, RF Input signal)
• CH2 : SLCO (DIC1-42, Slice level)
• CH3 : ED7 (DIC1-34, Sliced data of RF signal)

Fig. 7-21

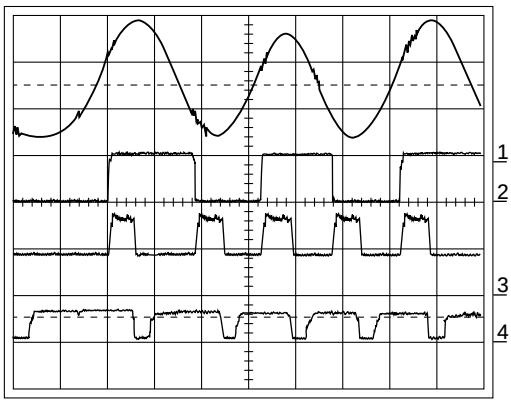
CH1 is RF signal waveform at refresh the error area of disc. It shows RF waveform swing lower than slice level. At the end, this part is displayed as error which is recovered to the original data by error correction signal of DIC1.



- CH1 : RFIN(at refreshing small error area of disc)
- CH2 : SLCO (Slice level)
- CH3 : ED7 (Sliced and outputted data of RF signal)

Fig. 7-22

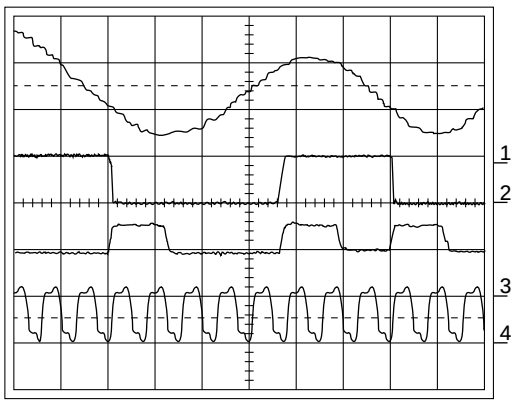
It shows error signal output, comparing PLL clock and phase difference in DIC1 when RF signal is inputted. The phase difference signals is inputted into VCO after summing in external PLL circuit of DIC1. VCO changes PLL clock frequency according to input voltage.
The middle frequency of external PLL circuit is approx. 27MHz and a clock(DIC1-26) locked by PLL on the basis of 27MHz may be shown at DVD playback.



- CH1 : RFIN(DIC1-50, RF Input signal)
- CH2 : SLCO (DIC1-34, Sliced data)
- CH3 : PDON (DIC1-36, Phase difference signal)
- CH4 : PDOP (DIC1-37, Phase difference signal)

Fig.7-23

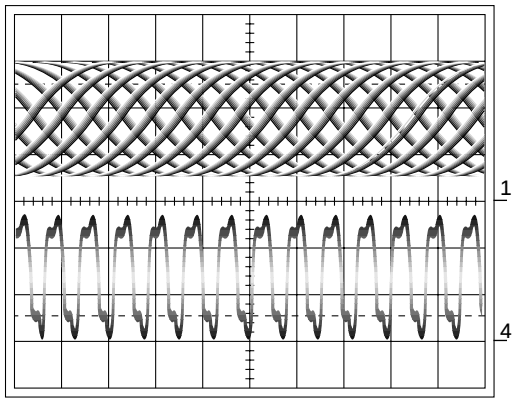
PLL lock at DVD playback



- CH1 : RFIN(DIC1-50, RF Input signal)
- CH2 : SLCO (DIC1-34, Sliced data)
- CH3 : PDON (DIC1-36, Phase difference signal)
- CH4 : PLCK (DIC1-26, PLL clock)

Fig. 7-24

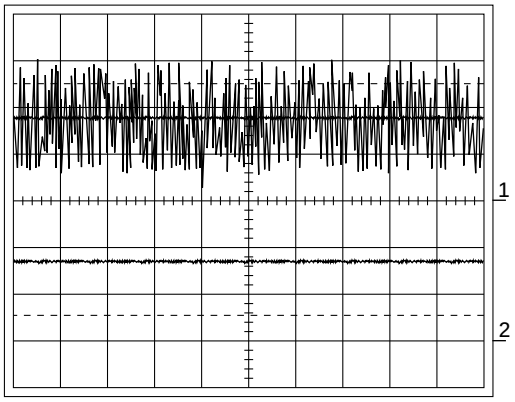
A clock locked by PLL on the basis of input RF signal, PLL clock and trigger may be shown at DVD playback. The eye of RF signal is open in PLL lock state.



- CH1 : RFIN(DIC1-50, RF Input signal) (Vp-p is approx. 2.5V)
- CH4 : PLCK (DIC1-26, PLL clock)

Fig. 7-25

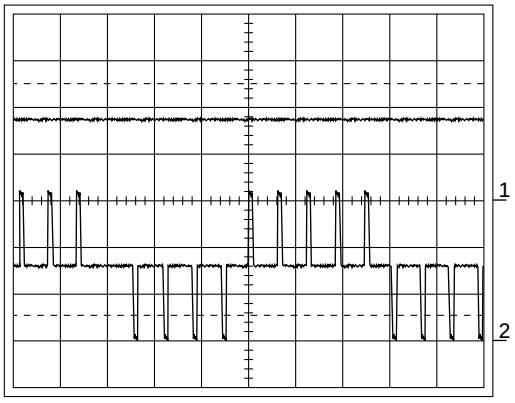
It shows RF signal and RLLD signal waveform at DVD refresh and RLLD waveform is regular as 1.65V. If a serious error occurs in disc, RLLD signal is outputted as correction signal and enters PLL control system after summing with phase difference signal.



- CH1 : RFIN(DIC1-50, RF Input signal)
- CH2 : RLLD (DIC1-38, RLLD signal at disk refresh)

Fig. 7-26

RLLD signal is ouputted at disc halt or occurrence of serious error.



- CH1 : RFIN(DIC1-50, RF Input signal)
- CH2 : RLLD (DIC1-38, RLLD at disc halt or occurrence of serious error)

Fig. 7-27

Because RF signal, external VCO input voltage and VCO control voltage swings terribly at disc halt, PLL ouput clock changes largely.(PLL not unlock state)

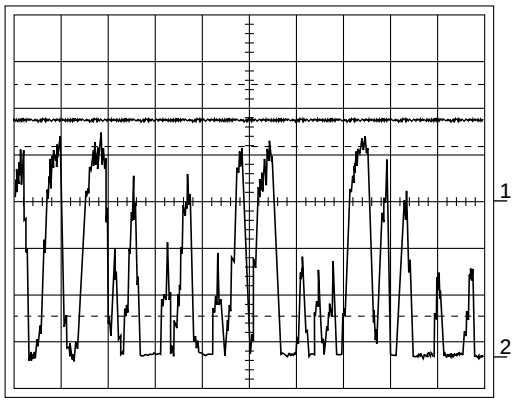


Fig. 7-28

- CH1 : RFIN(DIC1-50, RF Input signal at disc halt)
- CH2 : VCO control signal (DD1-3, Variable capacitance diode)

The input voltage of VCO becomes a regular voltage level(approx. 3.59V in Figure) at DVD playback and VCO outputs PLL clock depending on this control voltage. The input voltage of VCO swings a little and appears as frequency variation of VCO as much as change amount. As the control voltage of VCO is higher, PLL clock frequency becomes high.

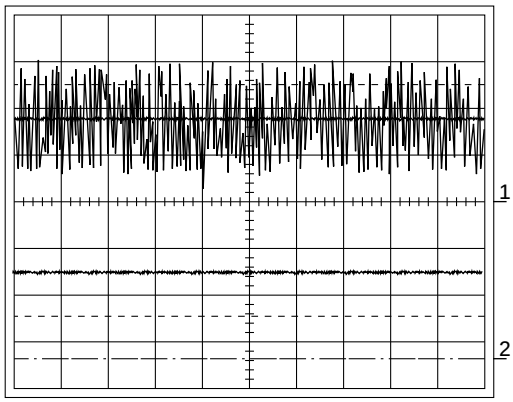


Fig. 7-29

- CH1 : RFIN(DIC1-50, RF Input signal at disc playback)
- CH2 : VCO control signal (DD1-3, Variable capacitance diode)

After the error-correcting process of input RF signal in DIC1 it makes the acknowlegde signal of CH2 LOW and outputs data (CH4).

when MPEG decoder(Video, Audio signal process chip) falls the request signal to 0(LOW) and demands data. The data acknowledge signal of CH2 and data of CH4 are synchronized with BSTCLK(CH3) and outputted. BSTCLK of CH3 is made by division of 33MHz into 16.

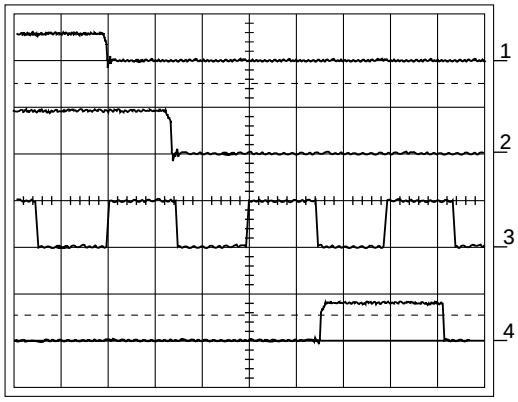
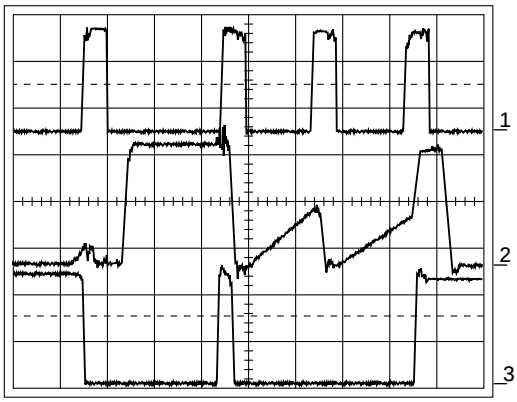


Fig. 7-30

- CH1 : PVSREQ (DIC1-96, Data request signal from DVD1)
- CH2 : PVSACK (DIC1-93, Output data acknowledge signal)
- CH3 : BSTCLK (DIC1-94, Output clock)
- CH4 : PVSIN (DIC1-81~84,87~90, Output data)

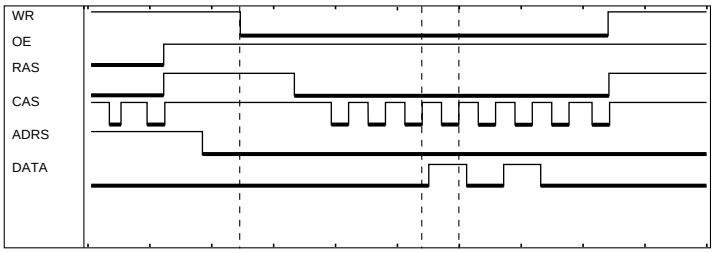
DIC1 shares the data bus of micom with other devices(A/V Decoder, EPROM, SRAM). CH2 shows the measurement of a signal line of data bus. The inclining and rising part in CH2 indicates high impedence state after data bus floating.The data bus is pulled up by 4.7K resistance.



- CH1 : ALE (MIC4-11, Address latch enable signal)
- CH2 : HAD0-7 (MIC4-2 to 9, Main micom address and data multiplexed bus)
- CH3 : HA0-7 (MIC4-19 to 12, Main micom addreess 0-7)

Fig. 7-31

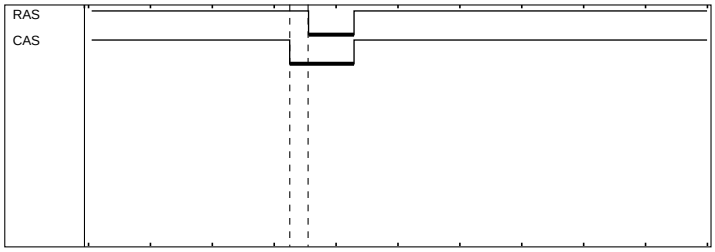
It shows access in fast page mode as waveform when DIC1 accesses external memory(4Mbit DRAM) at DVD refresh.



- WE : Write enable(DIC2-7)
- OE : OUTPUT ENABLE (DIC2-22)
- RAS : RAW ADDRESS STROBE (DIC2-8)
- CAS : COLUMN ADDRESS STROBE (DIC2-23)
- ADRS : ADDRESS
- DATA : DATA

Fig. 7-32

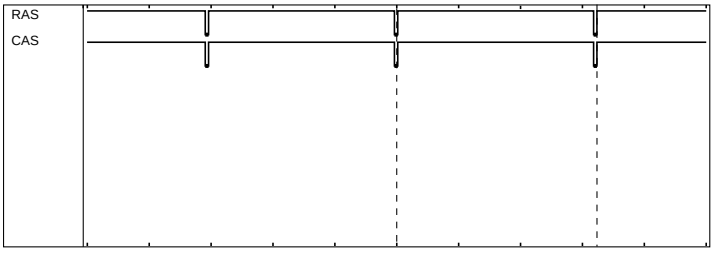
It shows the external memory refresh of DIC1 and uses CAS Before RAS Refresh.



- DIC2 (4MDRAM) REFRESH TIME

Fig. 7-33

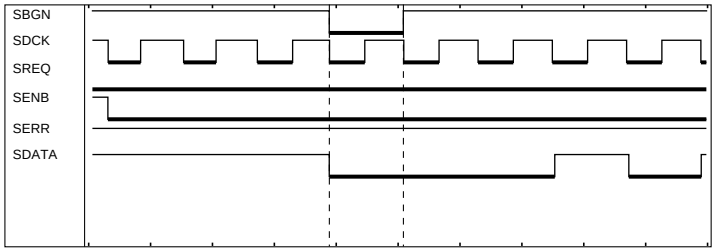
It shows refresh per approx. 31 usec as measurement of refresh waverform outputted by DIC1 in large timing.



Refresh time(Period) of DIC2(4MDRAM)

Fig. 7-34

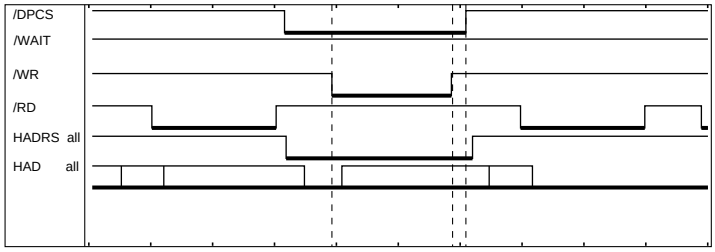
It measures the timing that data processed in DIC1 at DVD playback enters MUX(BIC8, BIC9)



- CH1 : SBGN (DICI-92, SECTOR BEGIN)
- CH2 : SDCK (DICI-94, CLOCK)
- CH3 : SREQ (DICI-96, DATA REQUEST)
- CH4 : SERR (DICI-91, DATA ERROR)
- CH5 : SDATA (DICI-81~84, 87~90, DATA)

Fig. 7-35

It shows the timing of control signal, address and data bus when micom accesses DIC1.
So to speak, timing at writing a value in the internal register of DIC1.



- CH1 : DPCS (DIC1-12, TC90A19F chip select)
- CH3 : WR (DIC1-10, TC90A19F register write)
- CH4 : RD (DIC1-11, TC90A19F register read)
- CH5 : HADRS (DIC1-24,25, Micom address bus)
- CH6 : HAD (DIC1-13~20, Micom data bus)

Fig. 7-36

It shows a waveform that DIC1 requests a management to micom by interrupt generation.
Micom recognizes the interrupt and writes a value in register of DIC1 to respond (instruction) for interrupt. Micom accesses DIC1 five times in Figure. Micom recognizes the operation of chip and makes a necessary instruction after receiving the interrupt generated in DIC1 and accessing the corresponding chip.

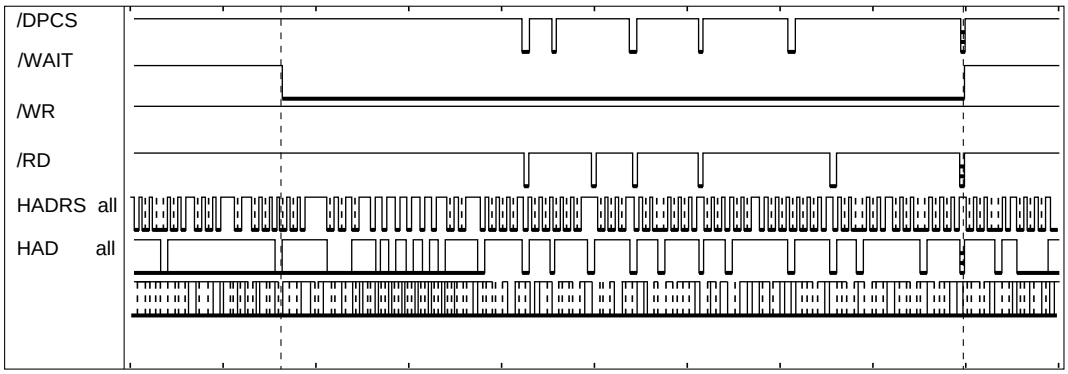


Fig. 7-37

- CH1 : DPCS (DIC1-12, TC90A19F chip select)
- CH2 : DPINT (DIC1-23, TC90A19F interrupt output)
- CH3 : WR (DIC1-10, TC90A19F register write)
- CH4 : RD (DIC1-11, TC90A19Fregister read)
- CH5 : HADRS (DIC1-24,25, Micom address bus)
- CH6 : HAD (DIC1-13~20, Micom data bus)

7-5 VIDEO

7-5-1 Outline

VIC1 does RGB encoding, copy guard processing and D/A conversion of 8bit video data inputted from BIC1 (A/V decoder) by control of MIC1(Micom).
Video signal converted into analog signal is outputted via low pass filter, amplifier and buffer unit of rear unit analog part.
Output signals are Y/Cr/Cb(or RGB), Y/C, composite video and because the processig course of each signal is same, the explanation is made on the basis of composite video signal.

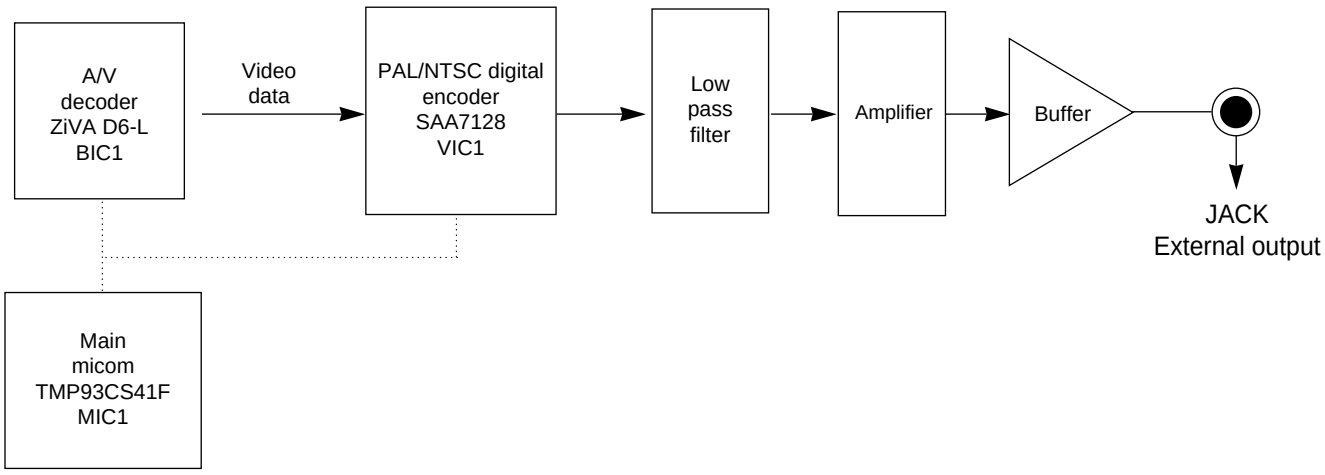


Fig. 7-38 Video output block diagram

7-5-2 NTSC/PAL digital encoder (VIC1;SAA7128)

HSYNC and VSYNC outputted from VIC1 are the synchronous signals with the video signal and control the output timing of 8bit digital video signal (VDATA[7:0]) of ITU-R656 format.
When the ITU-R656 format muxed with Cr/Cb/Y signal is inputted, first demuxing is performed to release the format. The demuxed signal obtains each Y/Cr/Cb, Y, C signal via Luminance processing, Chroma processing. At that time, a signal transformation and addition are made for copy guard processing and obstruct the normal signal copy. The composite signal is formed by adding of luminance and chrominance signal among them and Y/Cr/Cb signal is encoded to RGB by control of micom. RGB output is for the SCART output in Europe.
The above signals, that is Y/Cr/Cb (or RGB) Y/C, composite video signals are outputted from VIC1 through D/A converter.

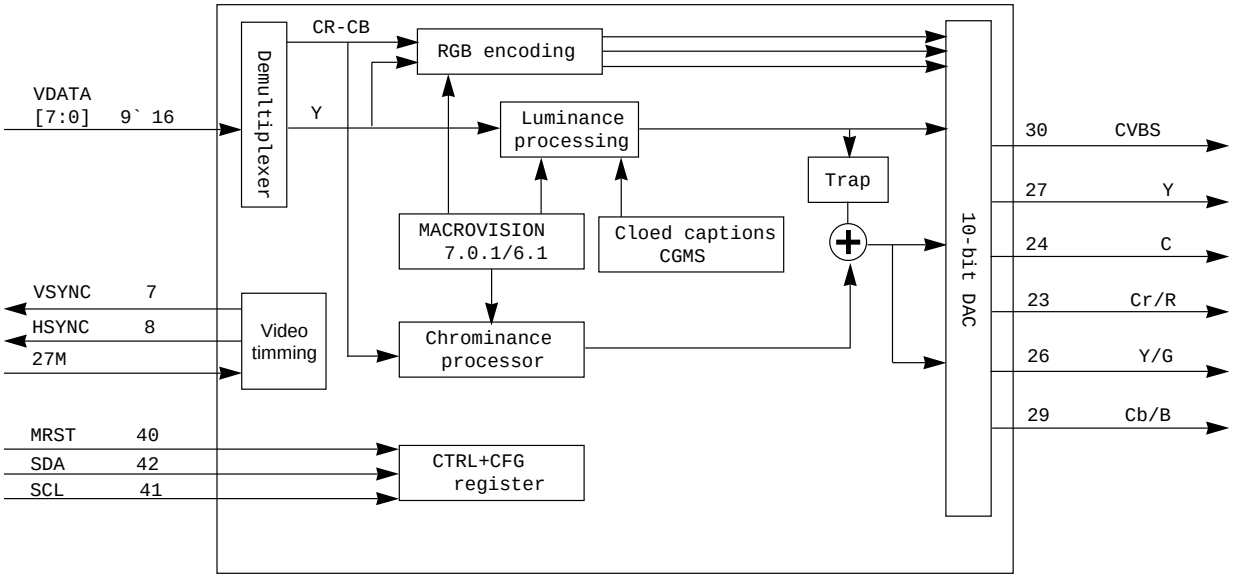


Fig. 7-39 VIC1 (SAA7128) Internal block diagram

7-5-3. Low pass filter VF1, VF2

VF1 and VF2 remove quantization noise occurring in the course of D/A conversion as low pass filter with cut-off frequency of 6.75MHz. VR5 and VR6 are input impedances and convert the level of subcarrier.

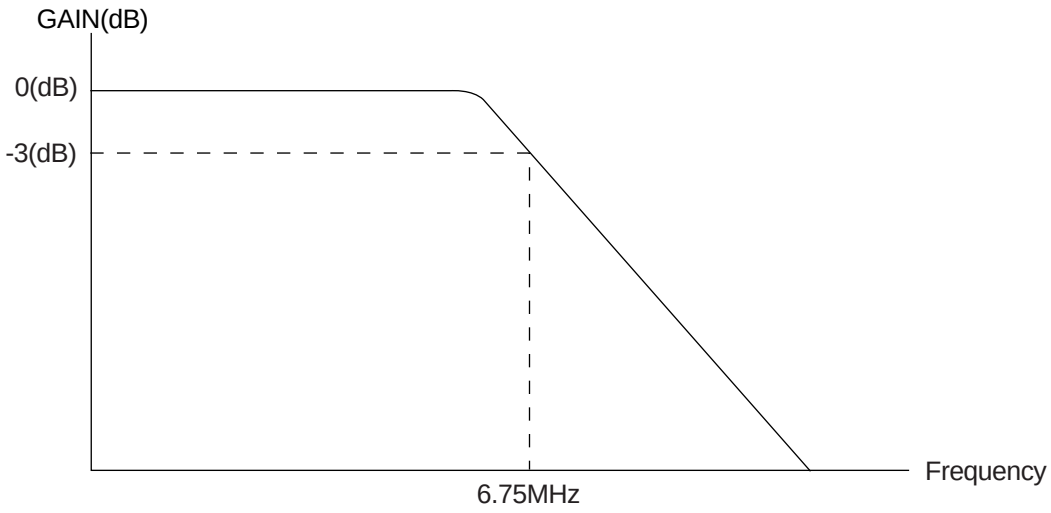


Fig. 7-40 Frequency features of VF1,VF2

7-5-4 Amplifier

VQ1 is buffer and the gain is amplified through VQ2, VQ3. The main factors which determine the gain are VR10 and VR11, and the gain is 1+VR11/VR10. VR12 is the main factor that determines the offset of output signal of amplifier unit and the rate is approx. VR 12/(VR10+VR11)

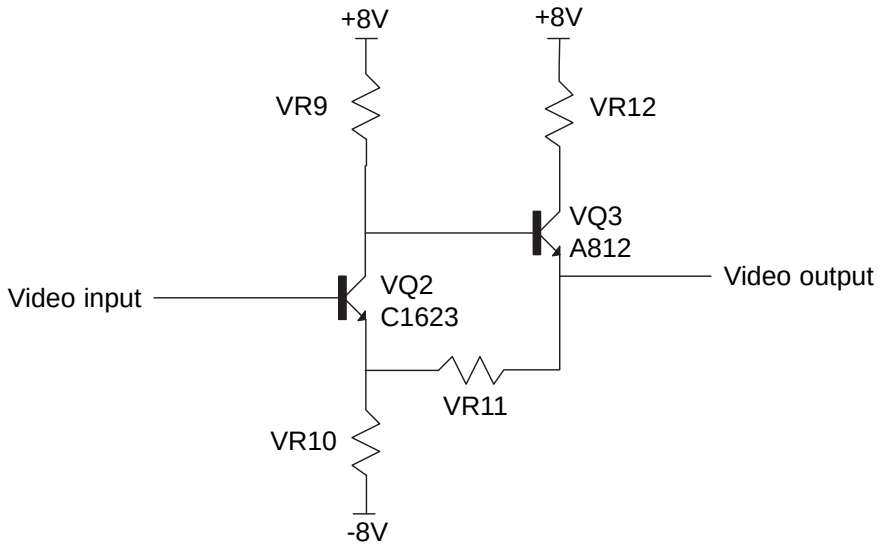


Fig. 7-41 Amplifier

7-6-5 Buffer

VQ4, VQ5, and VQ6 are buffer unit and circuit that double the drive power so as to output without signal conversion when connected with exterior devices. VC11 is an AC coupling capacitor, VR19 is an essential impediance at video signal interface and being matched with the impediance in the input block of exterior devices determines the level of video signal.

7-6 SERVO

7-6-1 Outline

SERVO system of DVD is divided into Focusing SERVO, Tracking SERVO, SLED Linked SERVO and CLV SERVO(DISC Motor Control SERVO).

1. Focusing SERVO
   Focuses the optical spot output from object lens onto the disc surface. Maintains a uniform distance between object lens of Pick-up and disc (for surface vibration of disc).

2. Tracking SERVO
   Make the object lens follow the disc track in use of tracking error signal (created from Pick-up).

3. SLED Linked SERVO
   When the tracking actuator inclines outwardly as the object lens follows the track during play, the SLED motor moves slightly (and counteracts the incline).

4. CLV SERVO (DISC Motor Control SERVO)
   Controls the disc motor to maintain a constant linear velocity (necessary for RF signal).

7-6-2 Block diagram

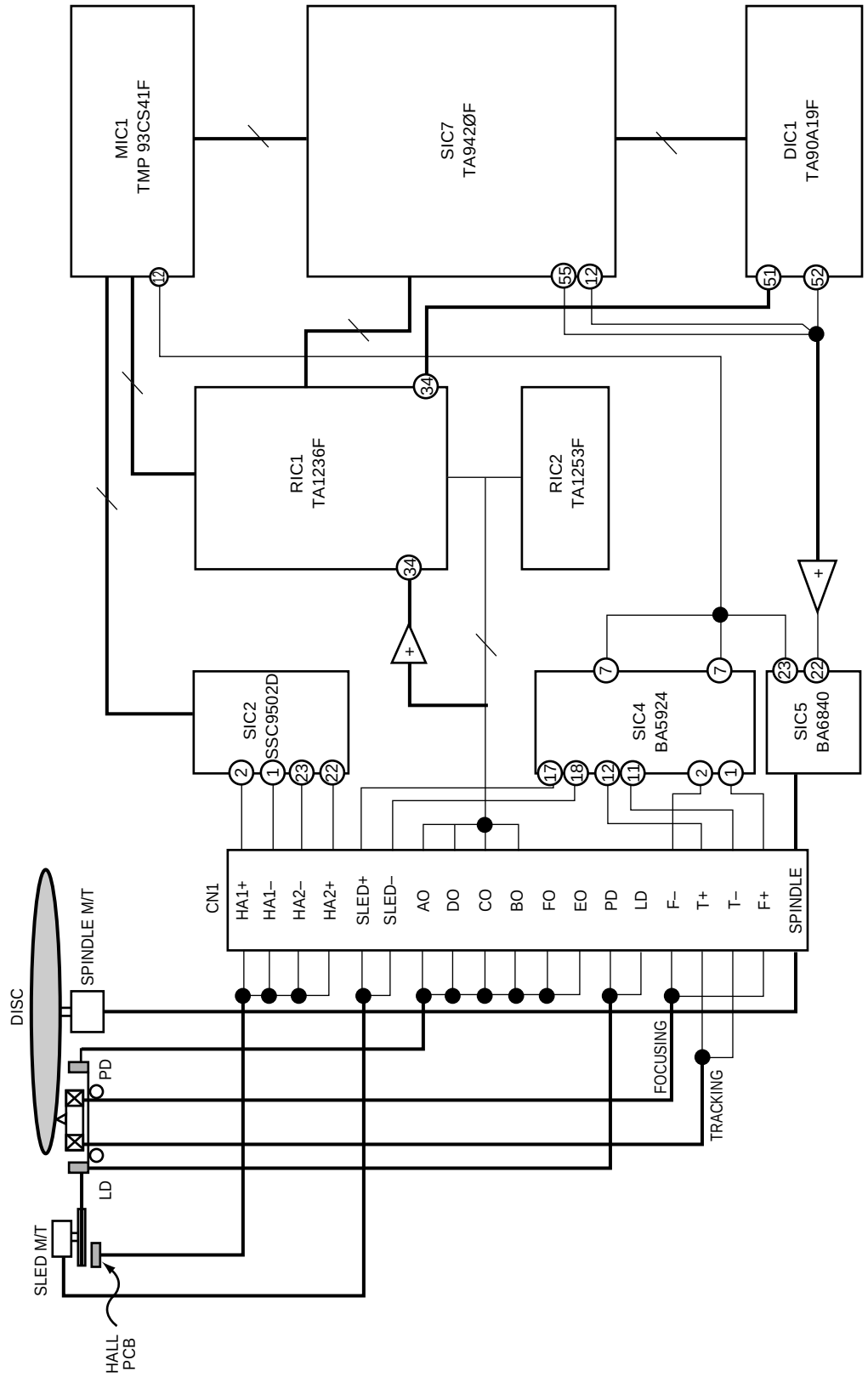


Fig. 7-42

7-6-3 Operation

1) FOCUSING SERVO

(1). FOCUS INPUT

The focus loop is changed from open loop to closed loop, and the triangular waveform moves the object lens up and down (at pin 48 of SIC7 during Focus SERVO ON.) At that time, S curve is input to pin 43 of SIC7.

SBAD (pin 44 of SIC7) signal, summing signal of PD 1, B, C, D, is generated, and zero cross(2.1V) point occurs when S curve is focused and SBAD signal exceeds a preset,constant value. The focus loop is changed to closed loop, and the object lens follows the disc movement, maintaining a constant distance from the disc. (these operations are same in CD and DVD).

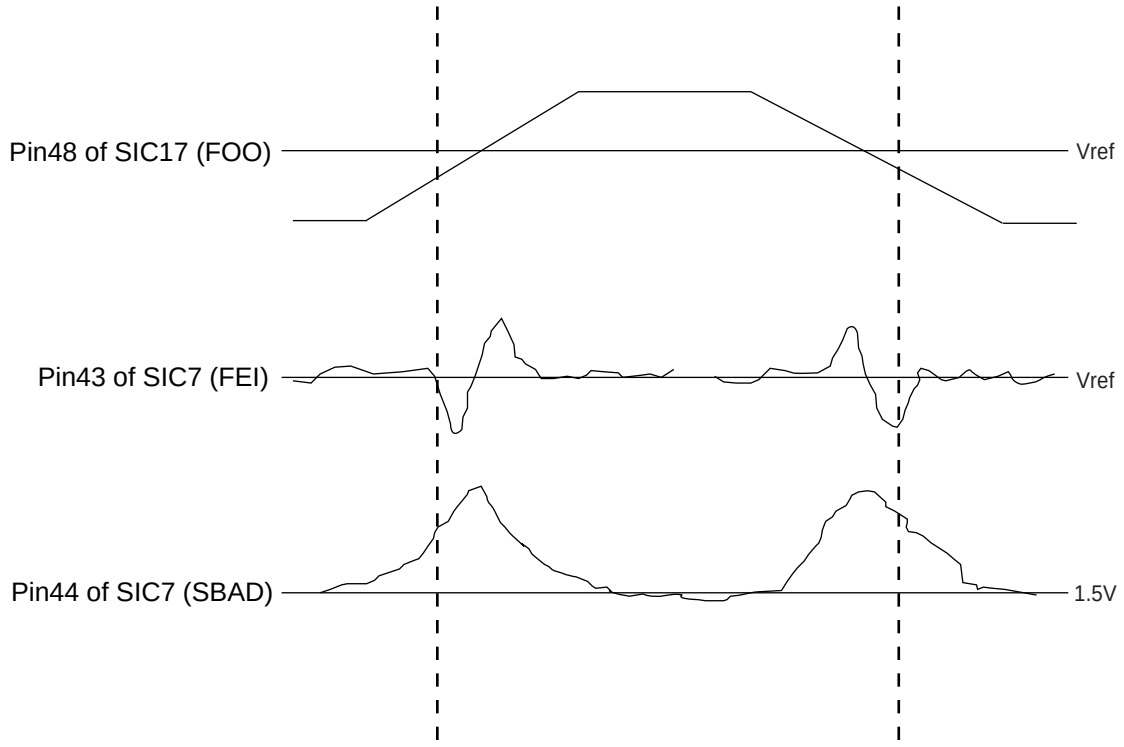


Fig. 7-43

(2). PLAY

When focus loop closes the loop during focus servo on, both pin 43 and pin 48 of SIC7 are controlled by VREF voltage(approx. 2.1V), and pin 1, 2 of SIC4 are approximately 4.5V.

2) TRACKING SERVO

(1). NORMAL PLAY MODE

(1) For DVD
Composite : The signal output from PD A, B, C, D of Pick-up, the tracking error signal (RIC2 pin 14) uses the phase difference of A+C and B+D in RIC2, and inputs to terminal 8 of RIC1. The signal is output to RIC1 pin 21, and input to SIC7 pin46(TEI). Then, it is output to SIC7 pin 49 via digital equalizer, and applied to the tracking actuator through SIC4. Pins 46, 49 of SIC7 are controlled by VREF(approx. 2.1V) during normal play.
Meanwhile, DVD repeats the track jump from 1 to 4 in inner direction at normal play (because data- read speed from disc is faster than data output speed on screen).

(2) For CD, VCD

Receive the signal output through E, F of Pick-up, from RIC1, differently from DVD and make the tracking error signal through RIC1 pin21. The tracking error signal is similar to DVD.

• SEARCH Mode :

Search mode : Fine seek,(Moving the tracking actuator slightly little below 255 track) and coarse search, moving much in use of sled motor. The coarse search will be described in sled linked servo and now, the fine seek is explained shortly.
If the object lens is located near target, cut off the tracking loop and give the control signal as many as desired count to move the tracking actuator via SIC7 pin 49 terminal(TRO).

3) SLED LINKED SERVO

• Normal play mode

Move SLED motor slightly by means of PWM signal in SIC7 pin 54, as the tracking actuator moves along with track during play. Control to move the entire Pick-up as the tracking actuator moves.

• Coarse serach mode

In case of long-distance search(such as chapter serach), pin 48 uses sled FG (SIC2 pin 19, which is generated) by rotation of sled motor via hall PCB. Then, read ID and compute the existing track count after input of next track. If the existing track count is within fine seek range, tracking begins using fine seek.

4) CLV SERVO(DISC MOTOR CONTROL SERVO)

• For DVD mode

Input RF signal (from Pick-up) to DIC1 pin50. Detect SYNC signal from RF in DIC1, and output PWM signal to DIC1 pin 54 for constant linear velocity.

• For DC, VCD mode

Input RF signal (from Pick-up) to SIC7 pin 36, Detect SYNC signal from RF in SIC7, and output PWM signal to SIC7 pin 55 for constant linear velocity.

7-7 Audio

7-7-1 Outline

The audio data transmitted from A/V decoder(BIC1:ZiVA D6-L) are converted into analog signal via audio D/A converter and outputted through post filter and amplifier. DVD audio is outputted after division into two cases that only 2 channels(L/R channel) are used and 5.1 channel of AC-3 is used. CD and VCD are outputted with only 2 outputs(L/R channel).
If DVD of 2 channels is used, rear L/R channel, center channel and subwooder channel are mixed and outputted in 2 channels.
The digital signals(IEC-958 Output) outputted from A/V decoder (BIC1:ZiVA D6-L)are outputted to digital amp or AC-3 amp through optical jack(AJ4:907K only) and RCA jack(AJ3).
Mike's voice input goes through the Echo Sound Processor. Then, the voice becomes mixed in with Sub Woofer Bass Redirection signals (DVD-907K only), engendering the front left and
right voices.

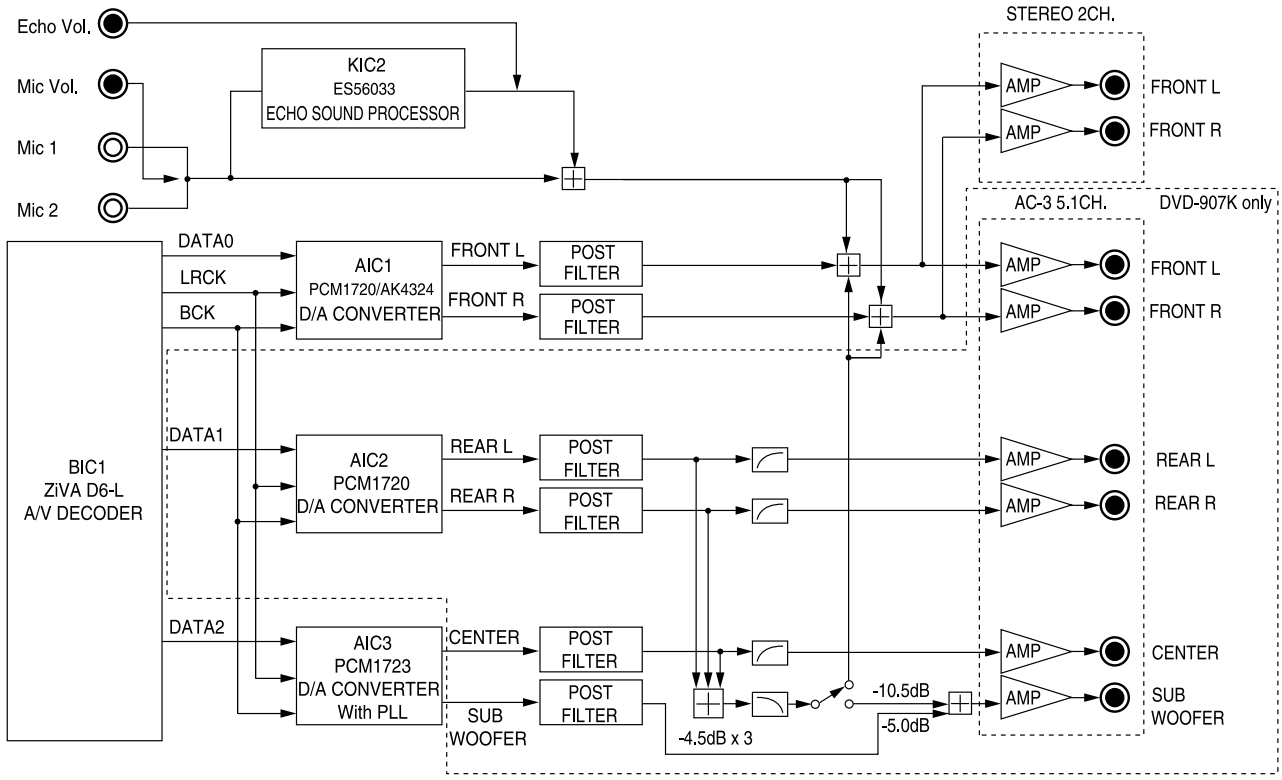


Fig. 7-44 Audio output Diagram

7-7-2 DVD audio output

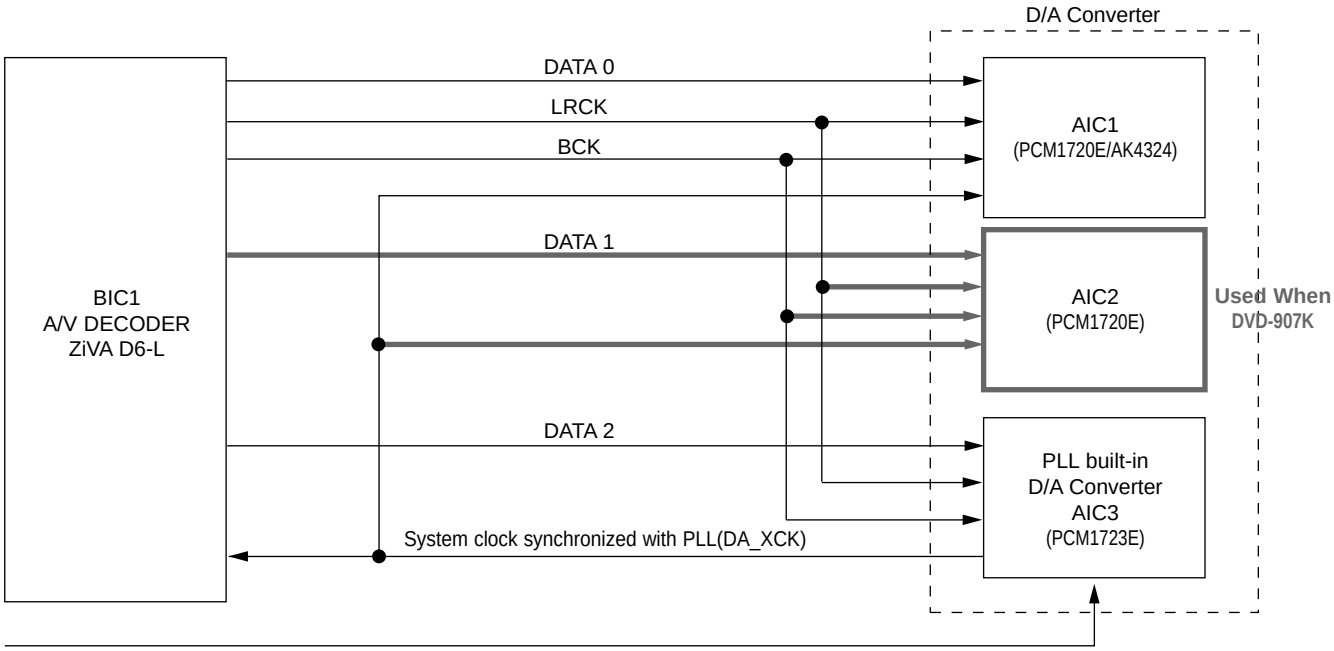


Fig. 7-45 Audio data and CLK

7-7-2(a) AC-3 5.1 channel

The system CLK generated by AIC3 built-in PLL circuit is provided for A/V decoder(BIC1) and audio D/A converter (AIC1, AIC2)and Sync. of each channel is agreed.
DVD audio data outputted from BIC1 A/V decoder are supplied to DATA0 for 2 channels and to DATA0-2 for 5.1 channel. Then, LRCK is outputted by 48KHz or 96KHz.
Front L/R channel is outputted in DATA0, rear L/R channel in DATA1 and center and sub woofer channel in DATA2. DATA0 data are outputted to front L/R channel after D/A conversion and filtering of AIC1(PCM1720/AK4324).
DATA1 data are ouputted by analog signal of D/A converter of AIC2(PCM1720E) and to rear L/R via HPF after filtering.
DATA2 data are converted into analog signal by D/A converter of AIC3(PCM1723E) and one channel is outputted by center output via post filter and HPF.
The other channel of AIC3(PCM1723E) is outputted by subwoofer signal through amplifier of -5.0dB and LPF.

7-7-2(b) Bass redirection(2 Channel down mixing)

If the user do not have sub woofer speaker and the disc is recorded by 5.1 channel, center, rear, sub woofer bass signal can be downmixed in 2 channel front L/R.
If there is a sub woofer speaker, it is outputted directly to subwoofer without down mixing.

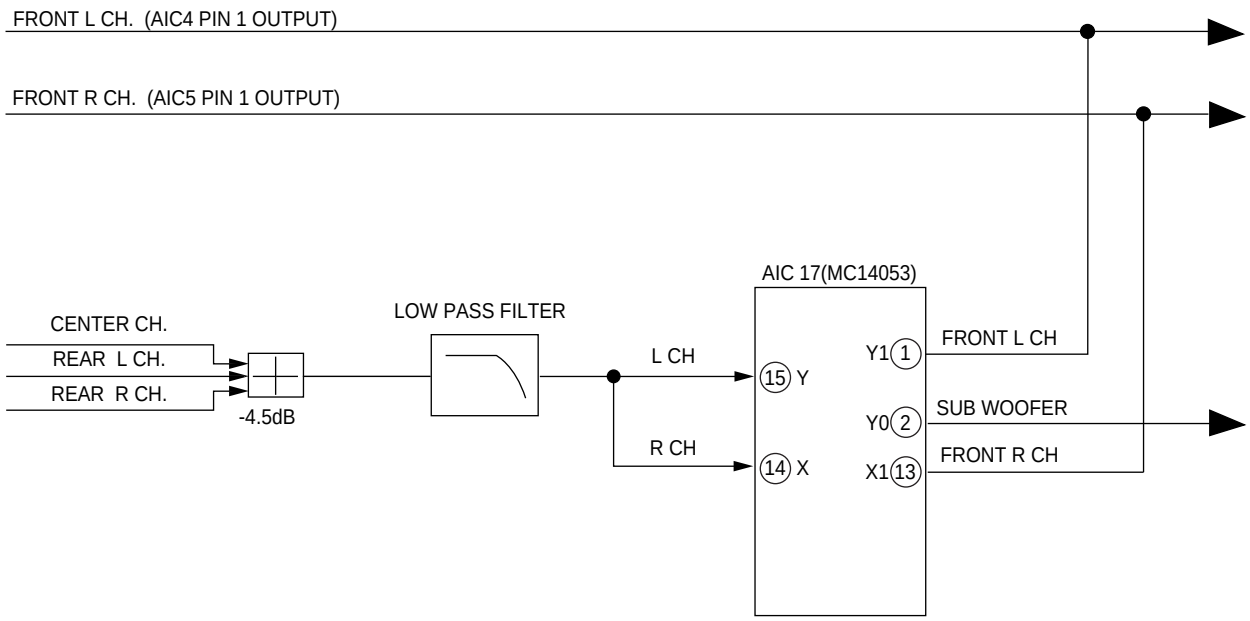


Fig. 7-46 2 Channel down mixing

The switch operations are carried out by AIC17(14053) in case of 2 Channel down mixing and SUB WOOFER speaker using.

	DOWN MIXING	THE USER USES SUB WOOFER
AIC17(10,11PIN) A,B	H	L
OUTPUT	AIC17(PIN 13,1) X1, Y1 MIXED L/R OUPUT	AIC17(PIN 2) Y0 (PIN2 SUB WOOFER OUTPUT)

Table 7-47 Down mixing output table

7-7-2(c) Karaoke

Siganl input from the mike enters into the initial phase as it becomes somewhat amplified as well as subjected to microphone volume control (At that moment, excessive input triggers Mute function-KQ1, KQ2).
The audio signals after passing through the volume control and the echo processed signals of the same audio data are combined for sending it out.
On the other hand, if mikes have not been inserted, the 5th pin of each of MIC1 and MIC2 and KQ3 base will trigger 'H,' bringing on the mute function on the Karaoke Board.
Hence, it can preserve the quality of the main board as usual.

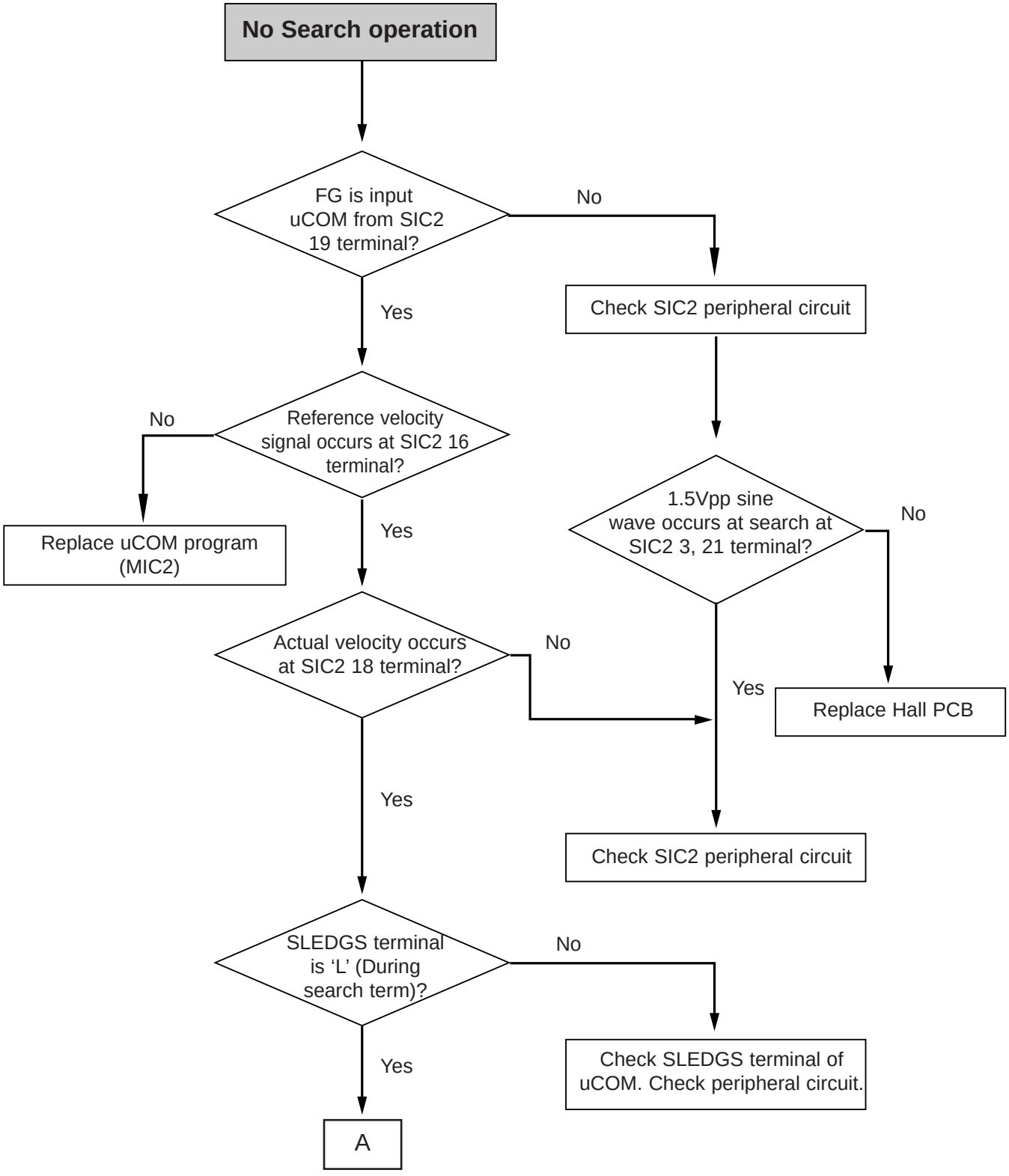
7-7-3 CD/VCD audio output

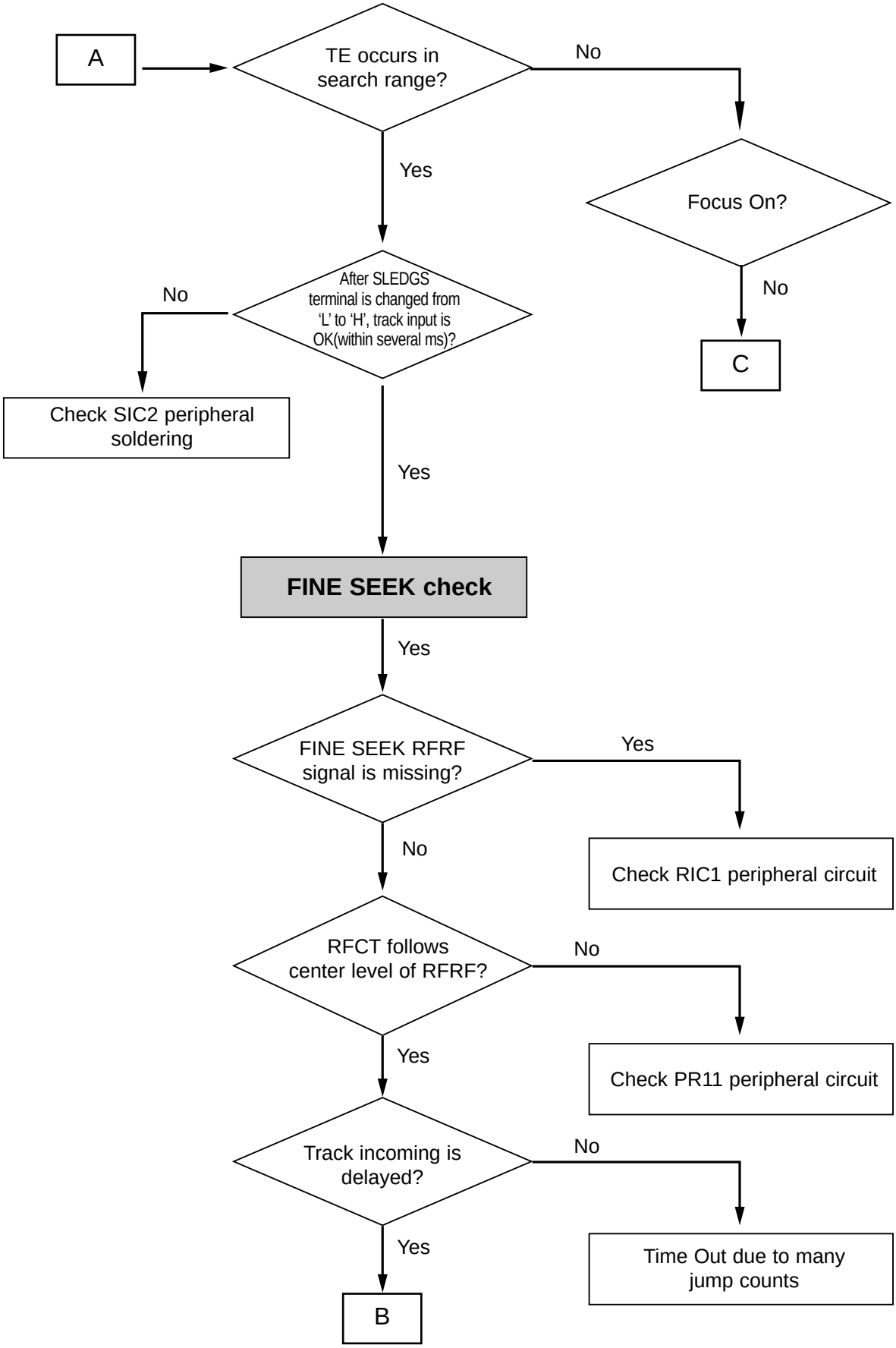
The audio of CD and VIDEO-CD bypasses the signals of SIC7(TC9420F) in BIC8,9 and BIC1 A/V decoder and outputs them to DATA0. Also they are outputted in stereo 2 channel(L/R channel) via D/A conversion and filtering of AIC1(PCM1720/AK4324).

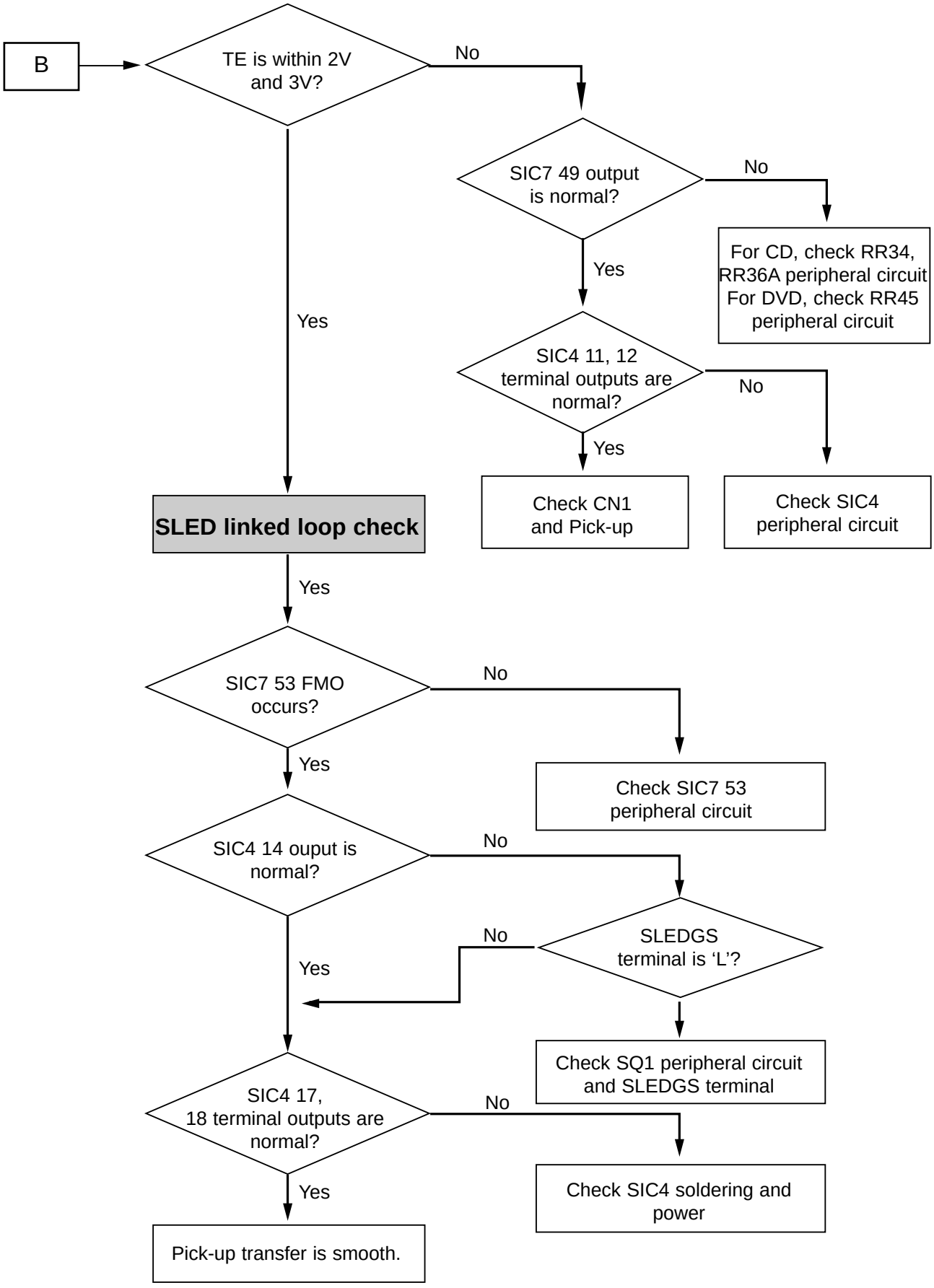
MEMO

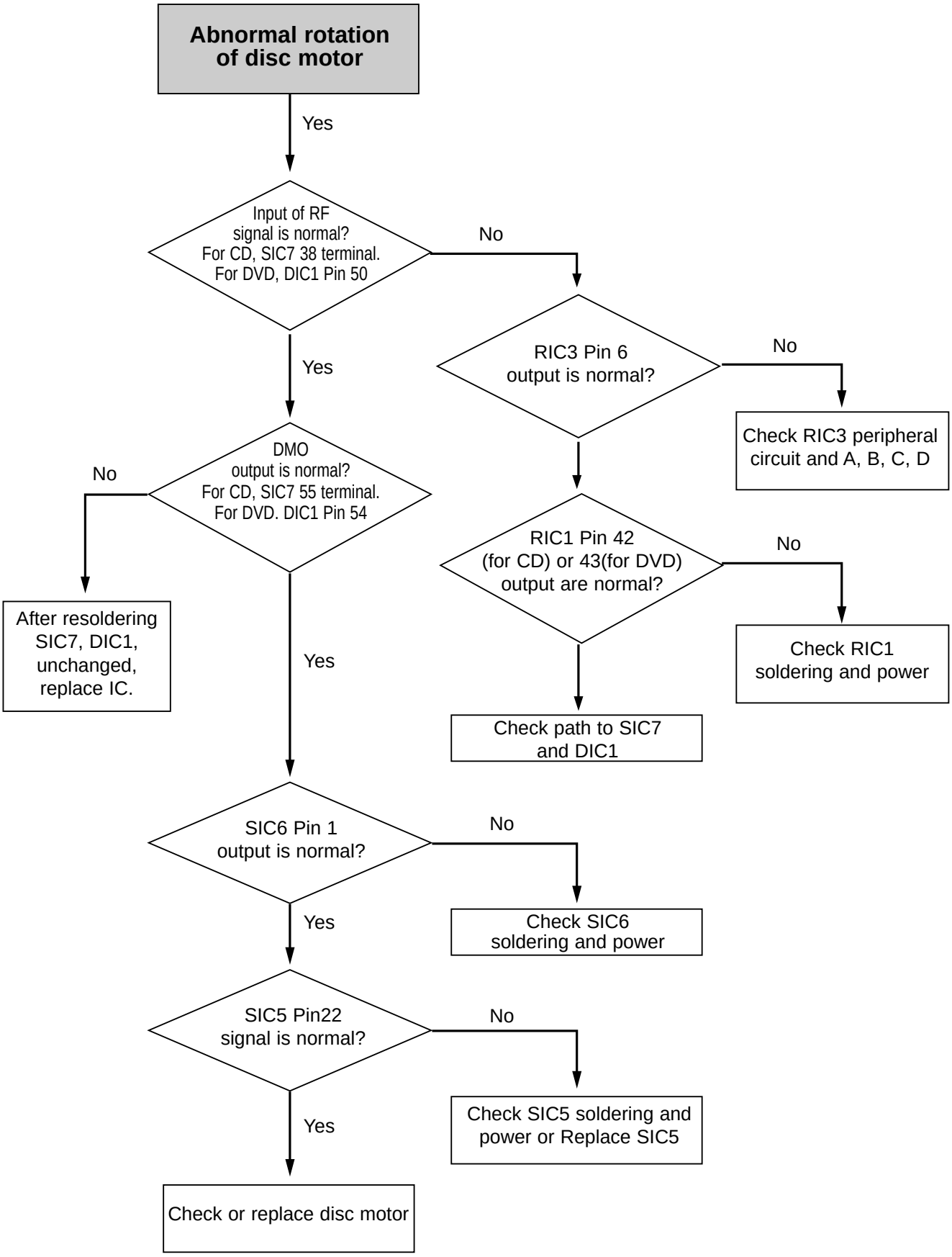
8. Troubleshooting

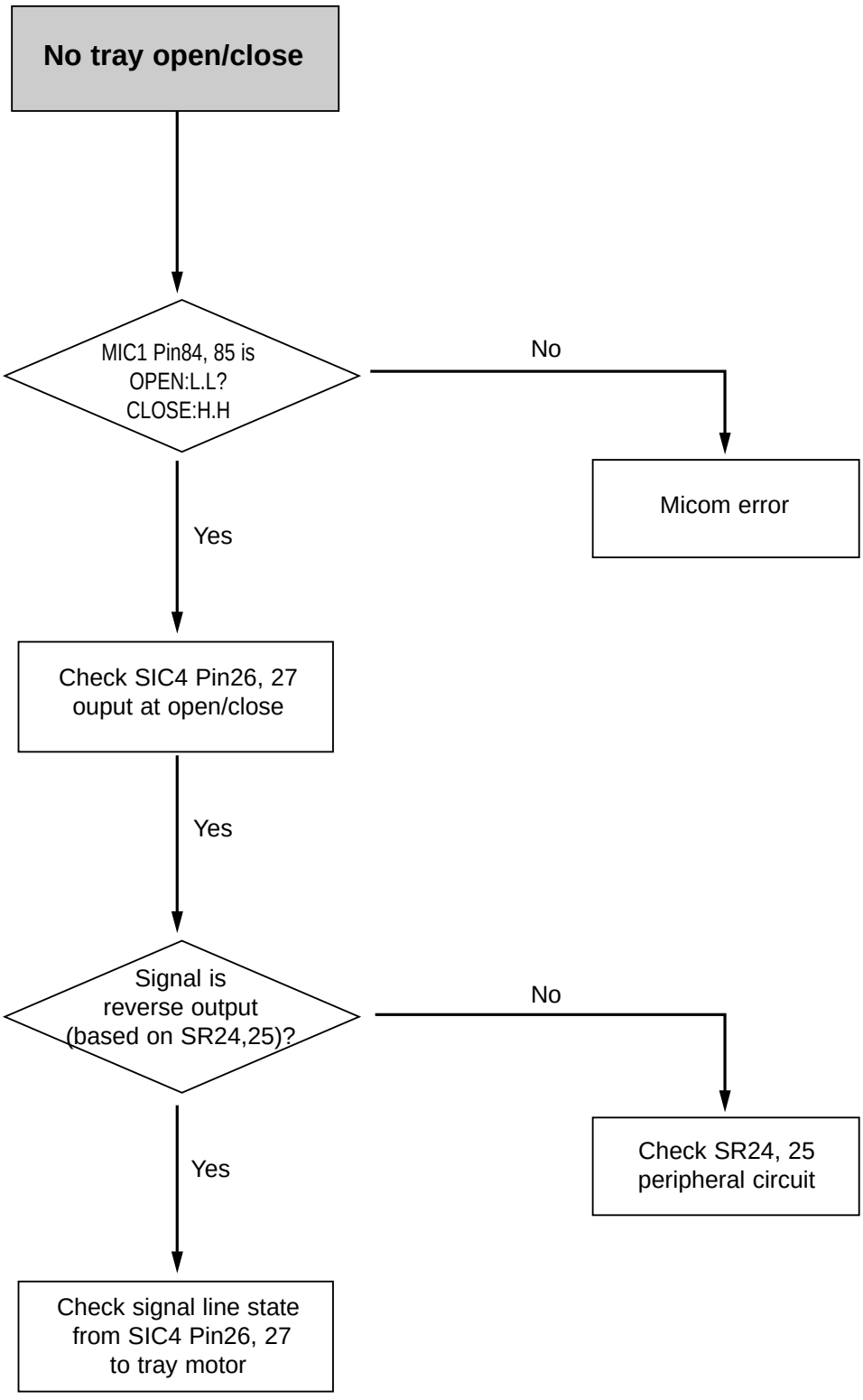
8-1. SERVO Thoubles

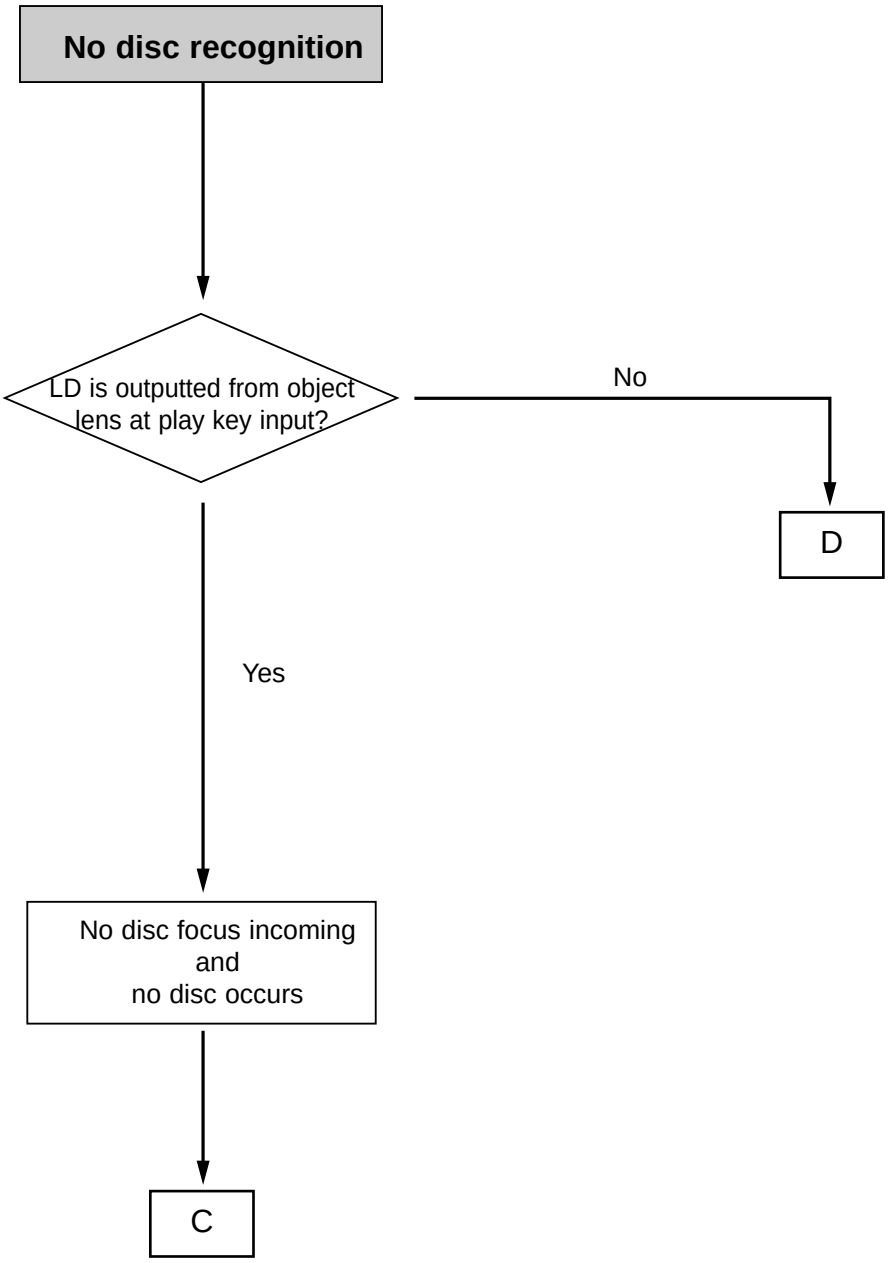


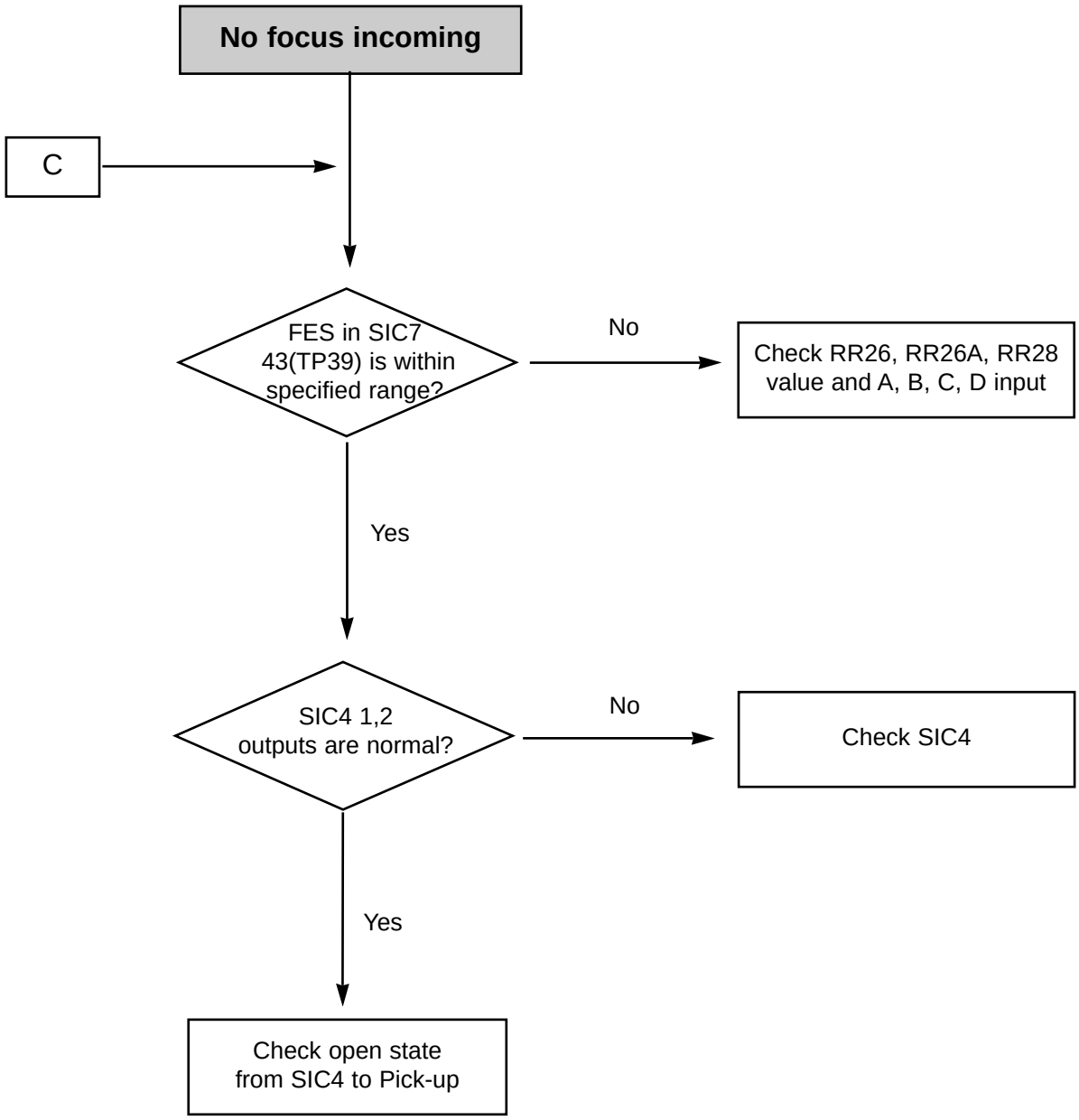

A
TE occurs in search range?
No
Yes
Focus On?
No
C
After SLEDGS terminal is changed from 'L' to 'H', track input is OK(within several ms)?
No
Check SIC2 peripheral soldering
Yes
FINE SEEK check
Yes
FINE SEEK RFRF signal is missing?
Yes
Check RIC1 peripheral circuit
No
RFCT follows center level of RFRF?
No
Check PR11 peripheral circuit
Yes
Track incoming is delayed?
No
Time Out due to many jump counts
Yes
B

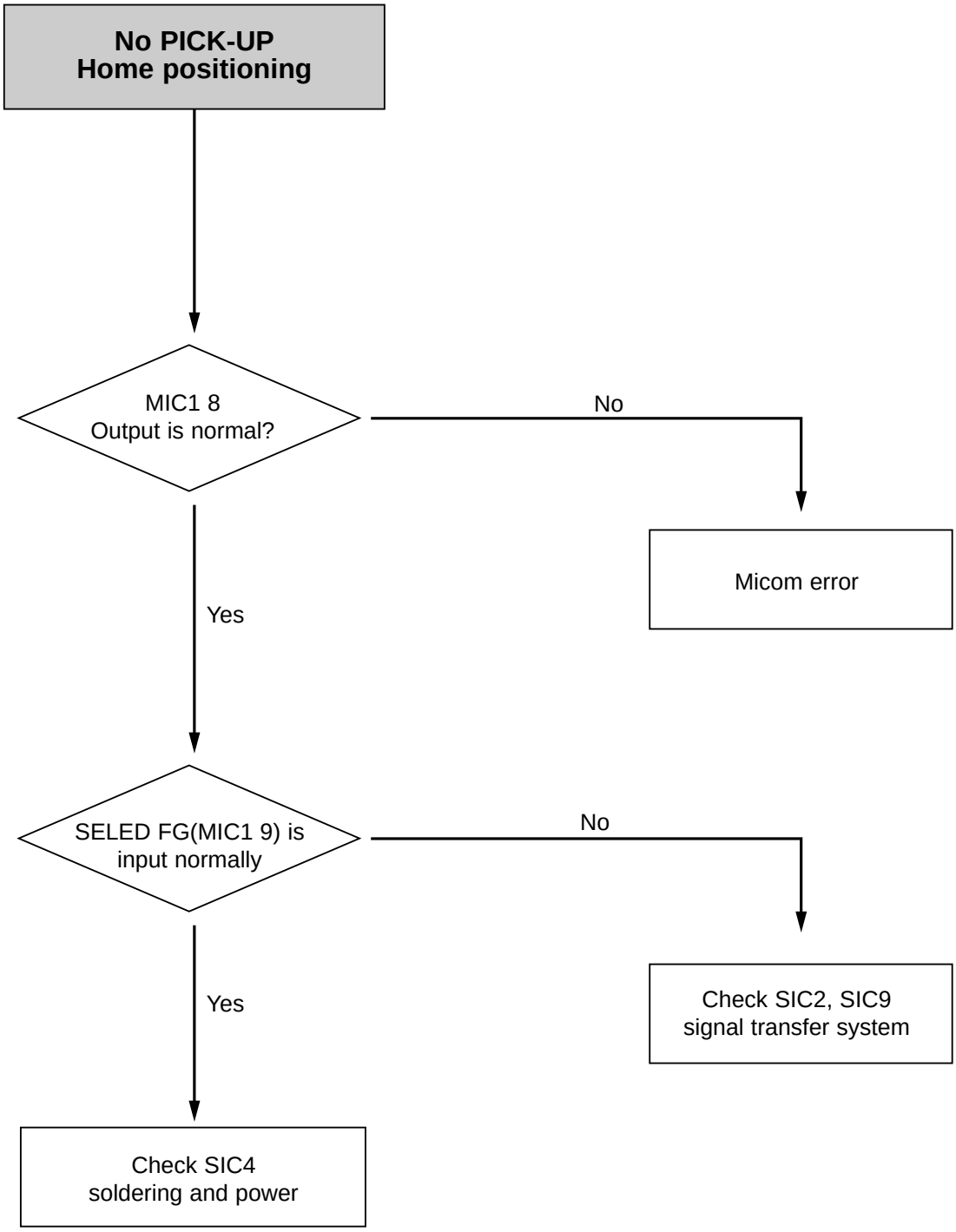

B
TE is within 2V and 3V?
No
Yes
SIC7 49 output is normal?
No
Yes
For CD, check RR34, RR36A peripheral circuit For DVD, check RR45 peripheral circuit
SIC4 11, 12 terminal outputs are normal?
No
Yes
Check CN1 and Pick-up
Check SIC4 peripheral circuit
SLED linked loop check
Yes
SIC7 53 FMO occurs?
No
Yes
Check SIC7 53 peripheral circuit
SIC4 14 ouput is normal?
No
SLEDGS terminal is 'L'?
No
Yes
Check SQ1 peripheral circuit and SLEDGS terminal
SIC4 17, 18 terminal outputs are normal?
No
Yes
Check SIC4 soldering and power
Pick-up transfer is smooth.

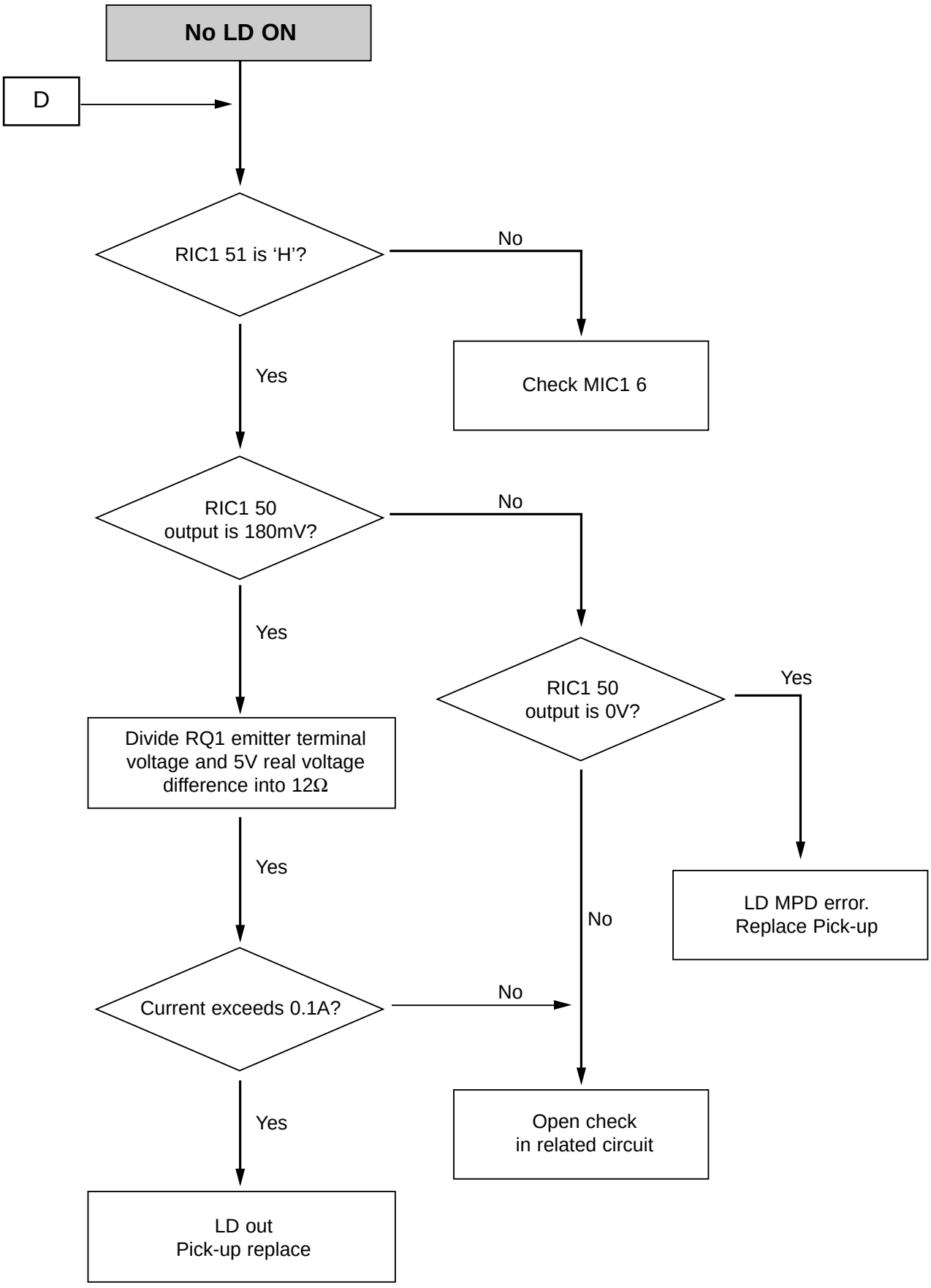

Abnormal rotation of disc motor
Yes
Input of RF signal is normal? For CD, SIC7 38 terminal. For DVD, DIC1 Pin 50
No
RIC3 Pin 6 output is normal?
No
Check RIC3 peripheral circuit and A, B, C, D
Yes
DMO output is normal? For CD, SIC7 55 terminal. For DVD. DIC1 Pin 54
No
After resoldering SIC7, DIC1, unchanged, replace IC.
RIC1 Pin 42 (for CD) or 43(for DVD) output are normal?
No
Check RIC1 soldering and power
Check path to SIC7 and DIC1
Yes
SIC6 Pin 1 output is normal?
No
Check SIC6 soldering and power
Yes
SIC5 Pin22 signal is normal?
No
Check SIC5 soldering and power or Replace SIC5
Yes
Check or replace disc motor

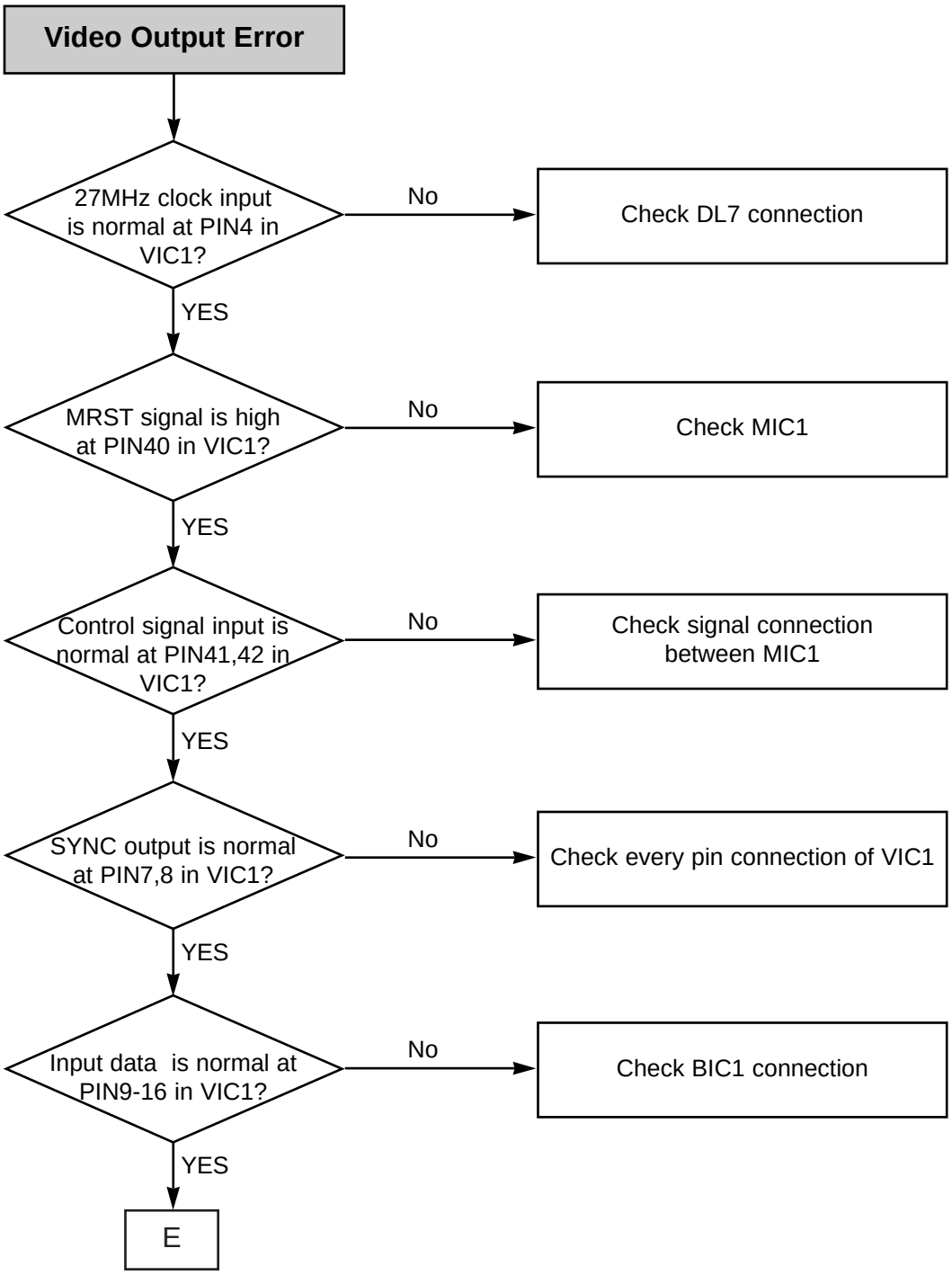

No tray open/close
MIC1 Pin84, 85 is
OPEN:L.L?
CLOSE:H.H
No
Micom error
Yes
Check SIC4 Pin26, 27
ouput at open/close
Yes
Signal is
reverse output
(based on SR24,25)?
No
Check SR24, 25
peripheral circuit
Yes
Check signal line state
from SIC4 Pin26, 27
to tray motor

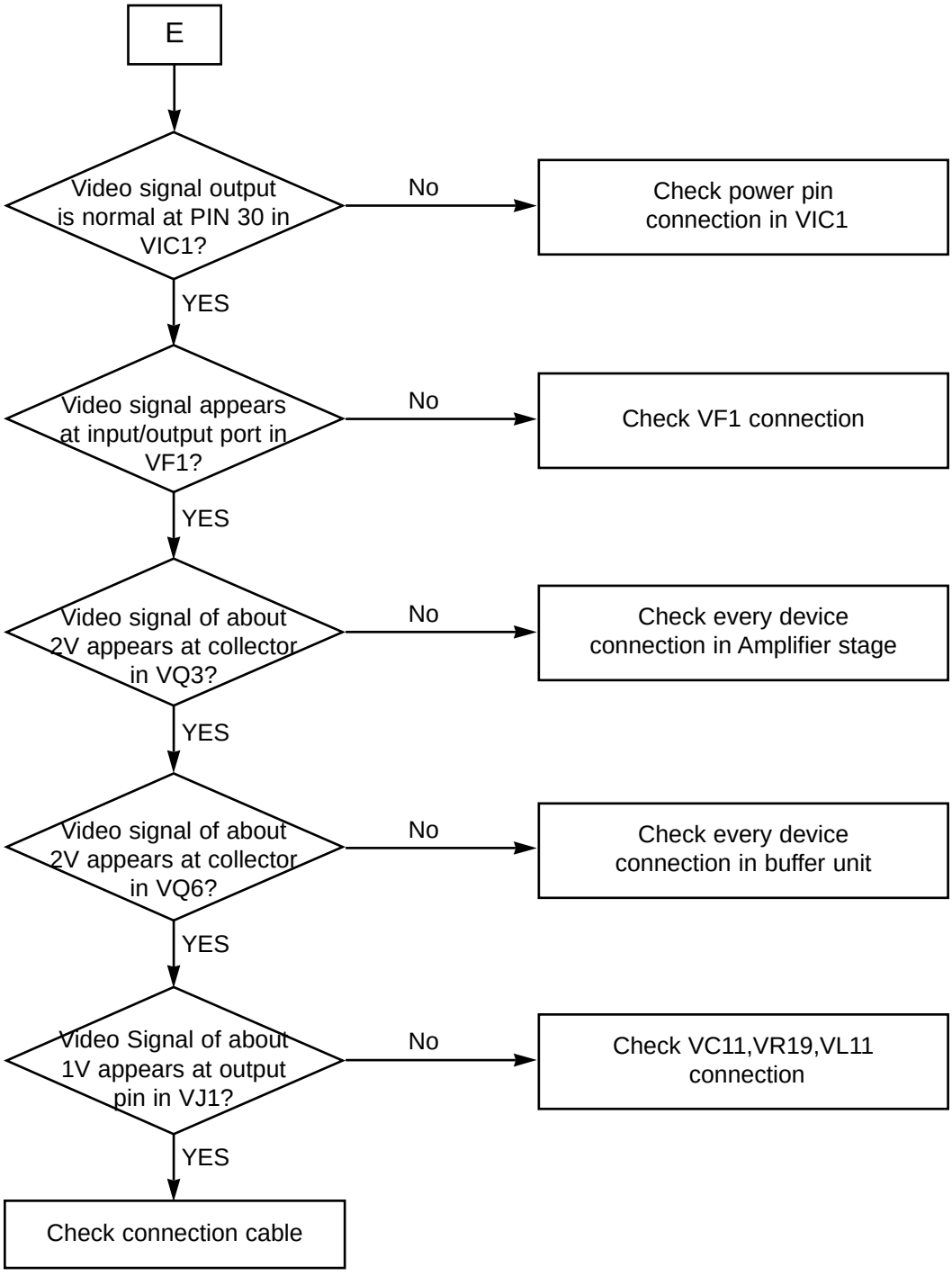

No disc recognition
LD is outputted from object lens at play key input?
No
D
Yes
No disc focus incoming and no disc occurs
C

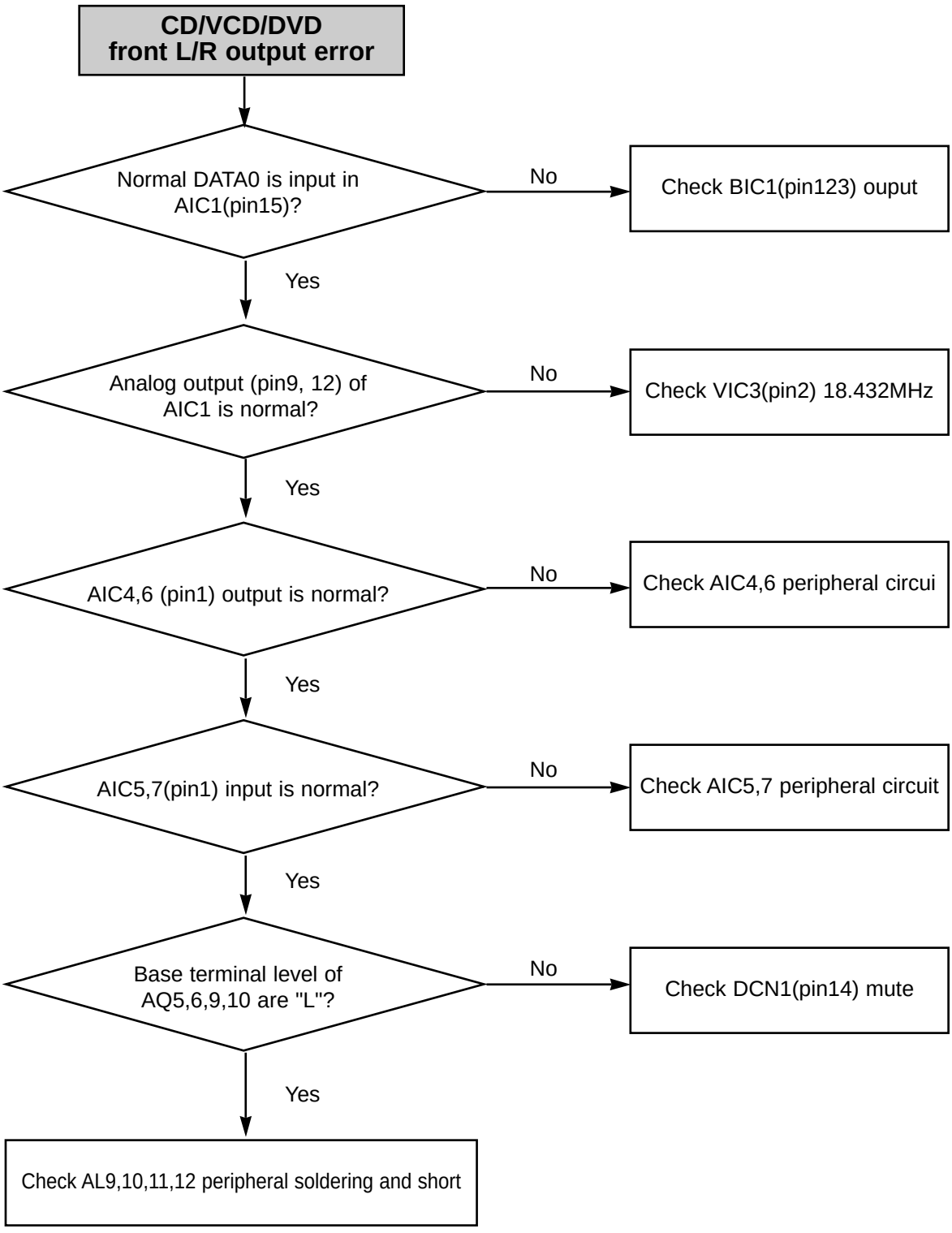

No focus incoming
C
FES in SIC7 43(TP39) is within specified range?
No
Check RR26, RR26A, RR28 value and A, B, C, D input
Yes
SIC4 1,2 outputs are normal?
No
Check SIC4
Yes
Check open state from SIC4 to Pick-up

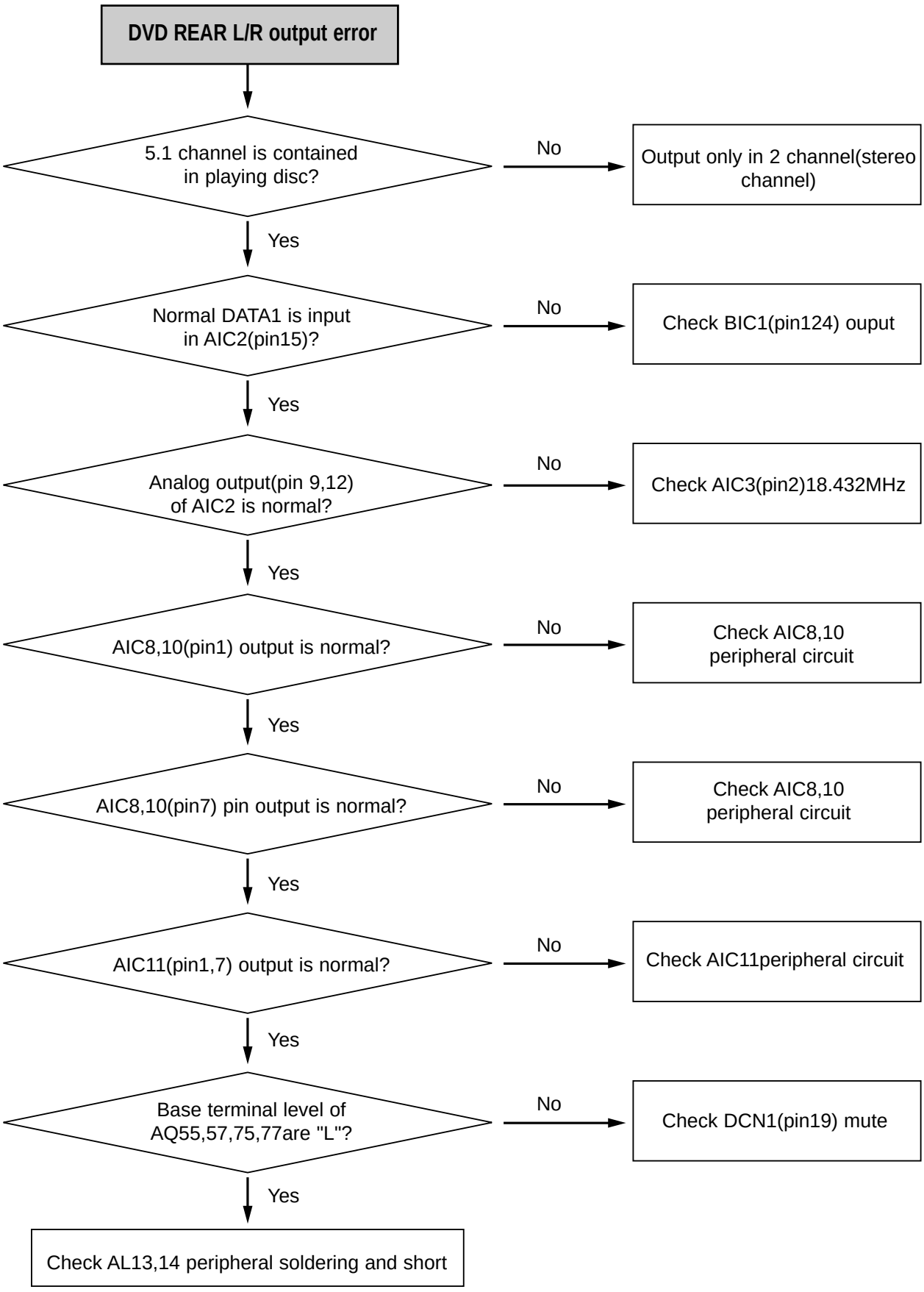

No PICK-UP
Home positioning
MIC1 8
Output is normal?
No
Micom error
Yes
SELED FG(MIC1 9) is
input normally
No
Check SIC2, SIC9
signal transfer system
Yes
Check SIC4
soldering and power

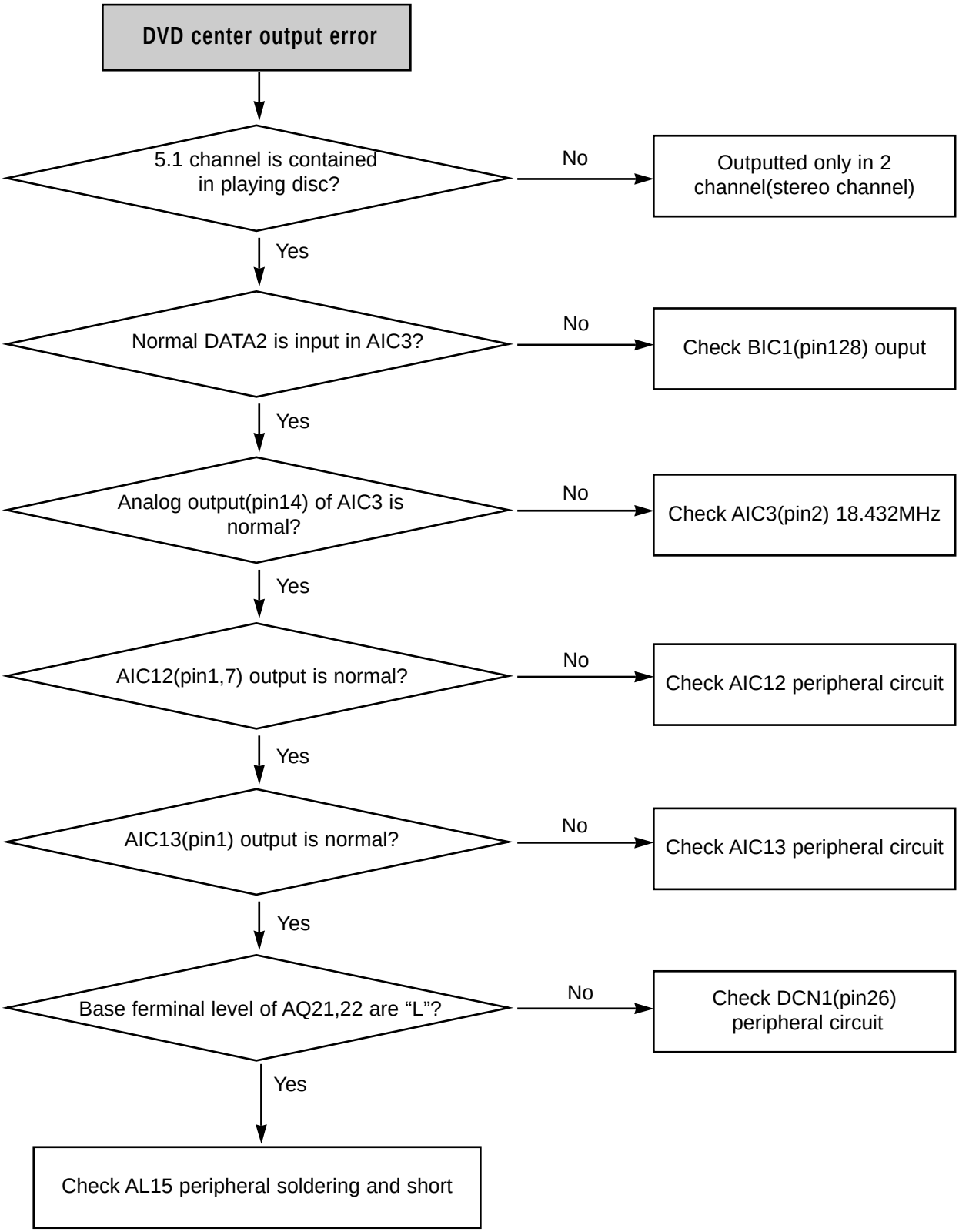

No LD ON
D
RIC1 51 is 'H'?
No
Check MIC1 6
Yes
RIC1 50
output is 180mV?
No
Yes
RIC1 50
output is 0V?
Yes
Divide RQ1 emitter terminal
voltage and 5V real voltage
difference into 12Ω
LD MPD error.
Replace Pick-up
Yes
No
Current exceeds 0.1A?
No
Open check
in related circuit
Yes
LD out
Pick-up replace

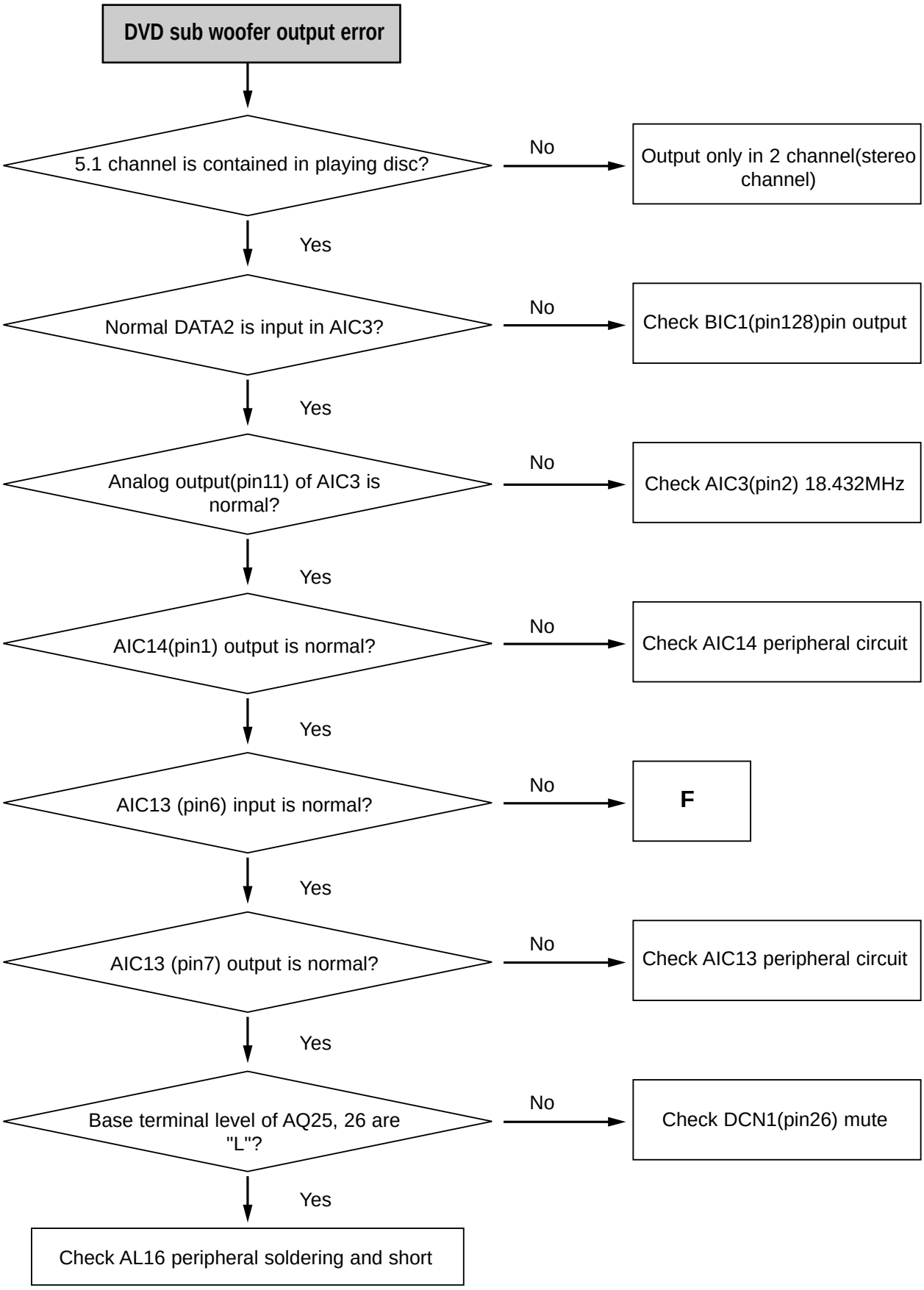

Video Output Error
27MHz clock input is normal at PIN4 in VIC1?
No
Check DL7 connection
YES
MRST signal is high at PIN40 in VIC1?
No
Check MIC1
YES
Control signal input is normal at PIN41,42 in VIC1?
No
Check signal connection between MIC1
YES
SYNC output is normal at PIN7,8 in VIC1?
No
Check every pin connection of VIC1
YES
Input data is normal at PIN9-16 in VIC1?
No
Check BIC1 connection
YES
E

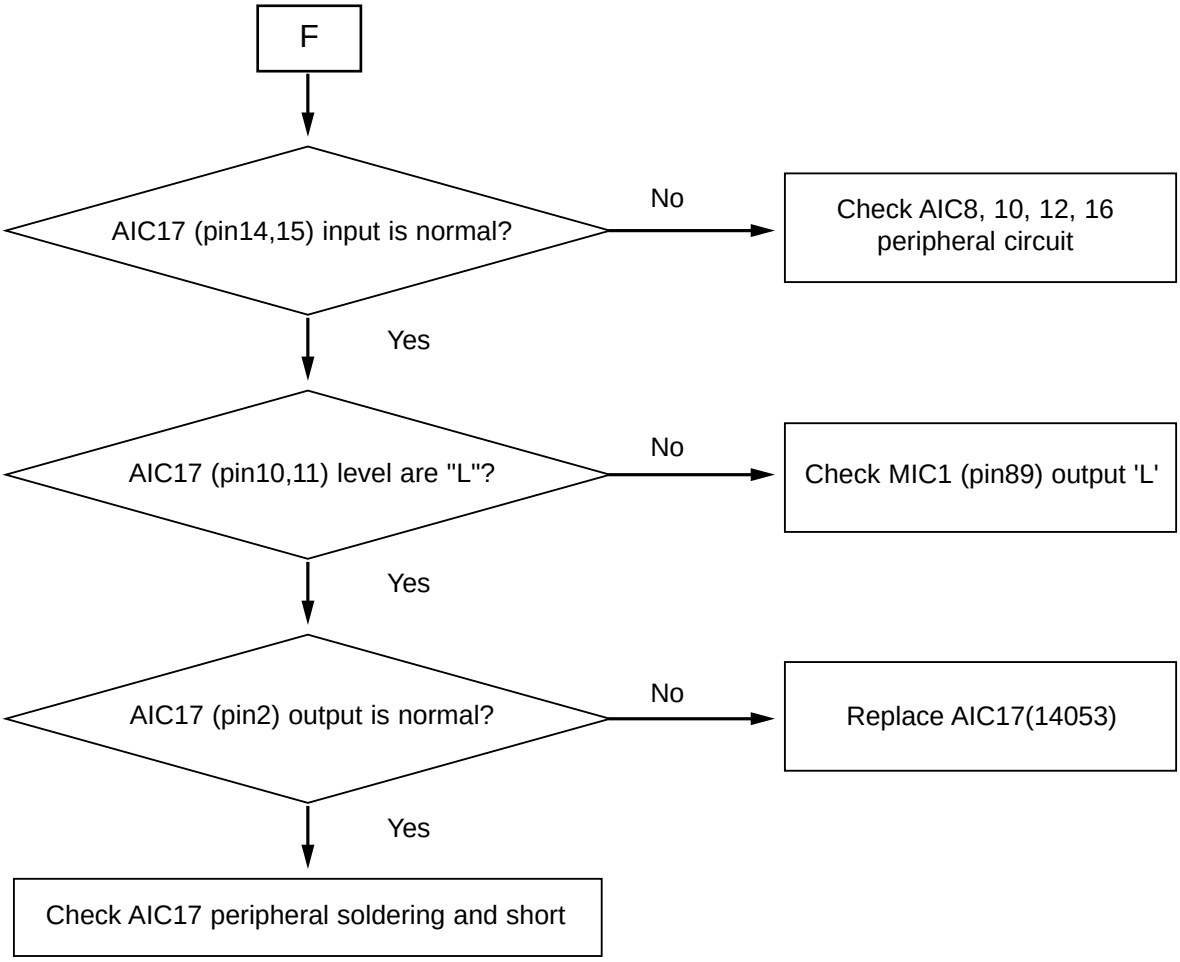

E
Video signal output is normal at PIN 30 in VIC1?
No
Check power pin connection in VIC1
YES
Video signal appears at input/output port in VF1?
No
Check VF1 connection
YES
Video signal of about 2V appears at collector in VQ3?
No
Check every device connection in Amplifier stage
YES
Video signal of about 2V appears at collector in VQ6?
No
Check every device connection in buffer unit
YES
Video Signal of about 1V appears at output pin in VJ1?
No
Check VC11,VR19,VL11 connection
YES
Check connection cable

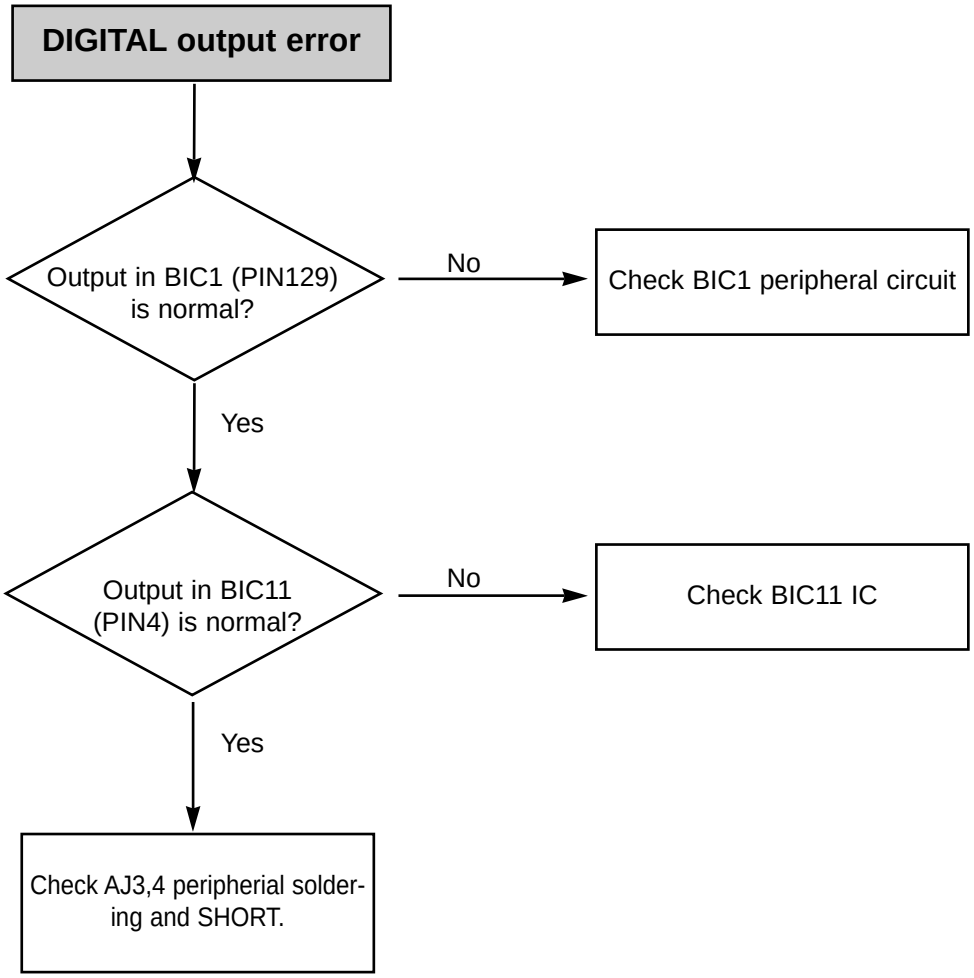

CD/VCD/DVD
front L/R output error
Normal DATA0 is input in AIC1(pin15)?
No
Check BIC1(pin123) ouput
Yes
Analog output (pin9, 12) of AIC1 is normal?
No
Check VIC3(pin2) 18.432MHz
Yes
AIC4,6 (pin1) output is normal?
No
Check AIC4,6 peripheral circui
Yes
AIC5,7(pin1) input is normal?
No
Check AIC5,7 peripheral circuit
Yes
Base terminal level of AQ5,6,9,10 are "L"?
No
Check DCN1(pin14) mute
Yes
Check AL9,10,11,12 peripheral soldering and short

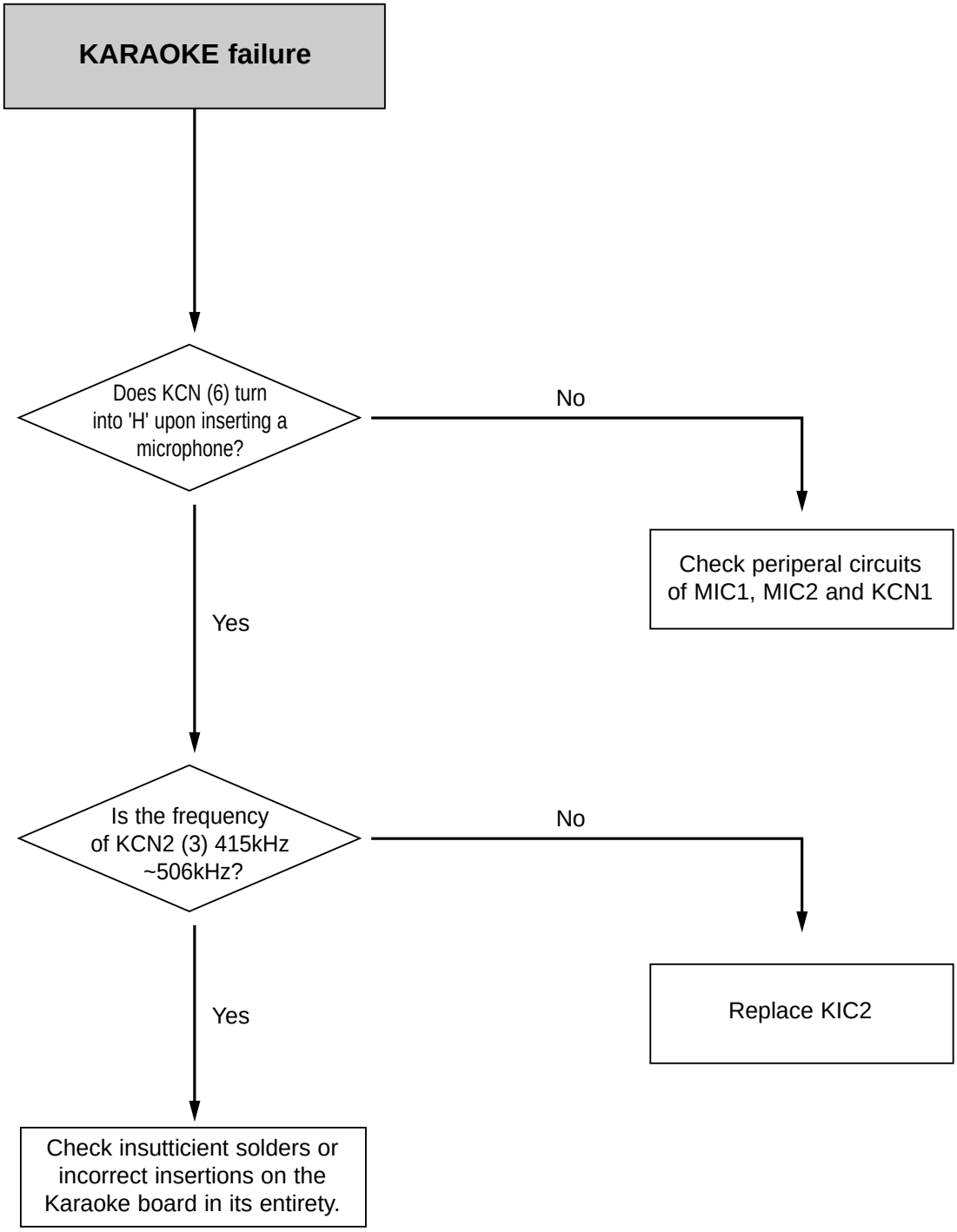

DVD REAR L/R output error
5.1 channel is contained in playing disc?
No
Output only in 2 channel(stereo channel)
Yes
Normal DATA1 is input in AIC2(pin15)?
No
Check BIC1(pin124) ouput
Yes
Analog output(pin 9,12) of AIC2 is normal?
No
Check AIC3(pin2)18.432MHz
Yes
AIC8,10(pin1) output is normal?
No
Check AIC8,10 peripheral circuit
Yes
AIC8,10(pin7) pin output is normal?
No
Check AIC8,10 peripheral circuit
Yes
AIC11(pin1,7) output is normal?
No
Check AIC11peripheral circuit
Yes
Base terminal level of AQ55,57,75,77are "L"?
No
Check DCN1(pin19) mute
Yes
Check AL13,14 peripheral soldering and short


DVD center output error
5.1 channel is contained in playing disc?
No
Outputted only in 2 channel(stereo channel)
Yes
Normal DATA2 is input in AIC3?
No
Check BIC1(pin128) ouput
Yes
Analog output(pin14) of AIC3 is normal?
No
Check AIC3(pin2) 18.432MHz
Yes
AIC12(pin1,7) output is normal?
No
Check AIC12 peripheral circuit
Yes
AIC13(pin1) output is normal?
No
Check AIC13 peripheral circuit
Yes
Base ferminal level of AQ21,22 are “L”?
No
Check DCN1(pin26) peripheral circuit
Yes
Check AL15 peripheral soldering and short

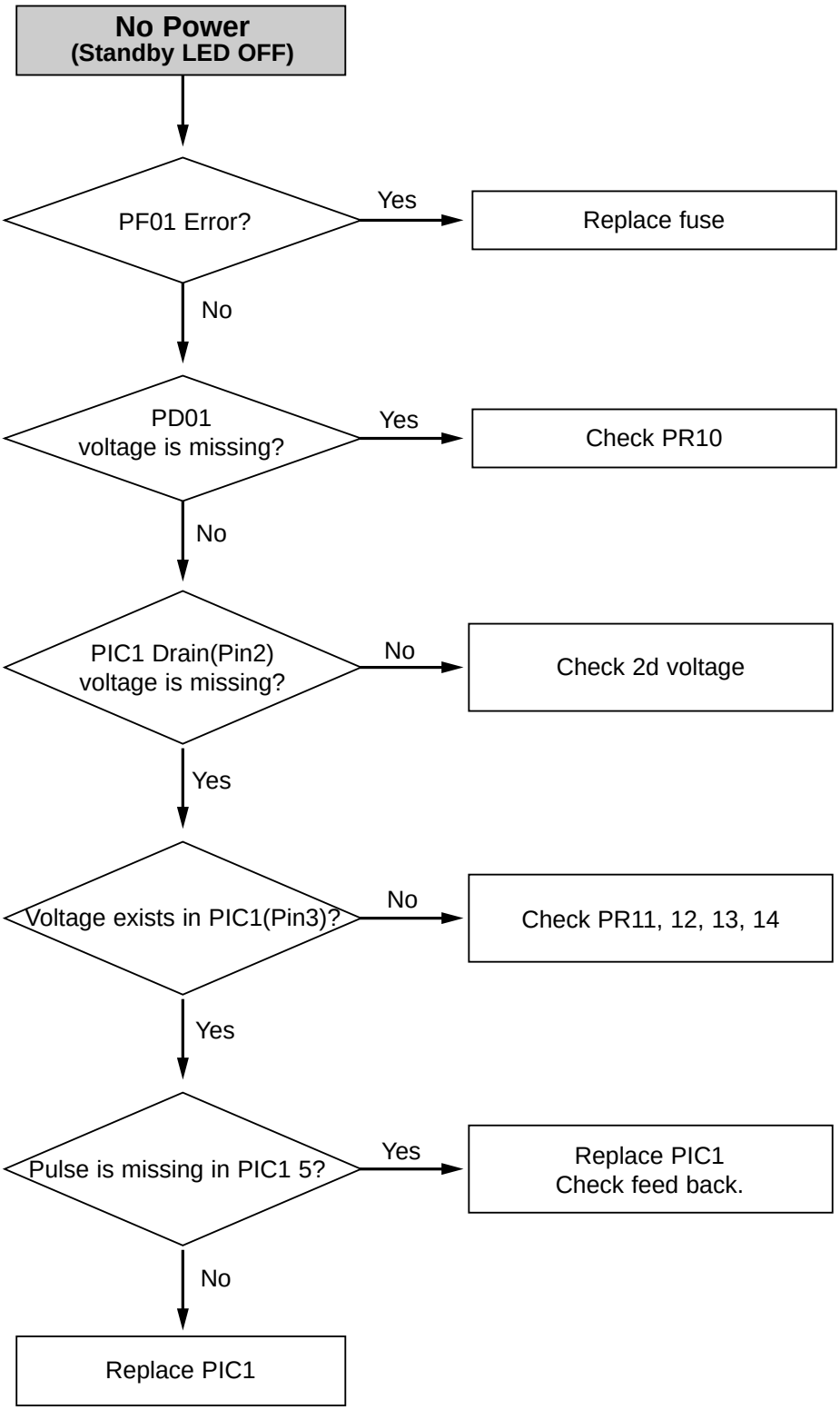

DVD sub woofer output error
5.1 channel is contained in playing disc?
No
Output only in 2 channel(stereo channel)
Yes
Normal DATA2 is input in AIC3?
No
Check BIC1(pin128)pin output
Yes
Analog output(pin11) of AIC3 is normal?
No
Check AIC3(pin2) 18.432MHz
Yes
AIC14(pin1) output is normal?
No
Check AIC14 peripheral circuit
Yes
AIC13 (pin6) input is normal?
No
F
Yes
AIC13 (pin7) output is normal?
No
Check AIC13 peripheral circuit
Yes
Base terminal level of AQ25, 26 are "L"?
No
Check DCN1(pin26) mute
Yes
Check AL16 peripheral soldering and short

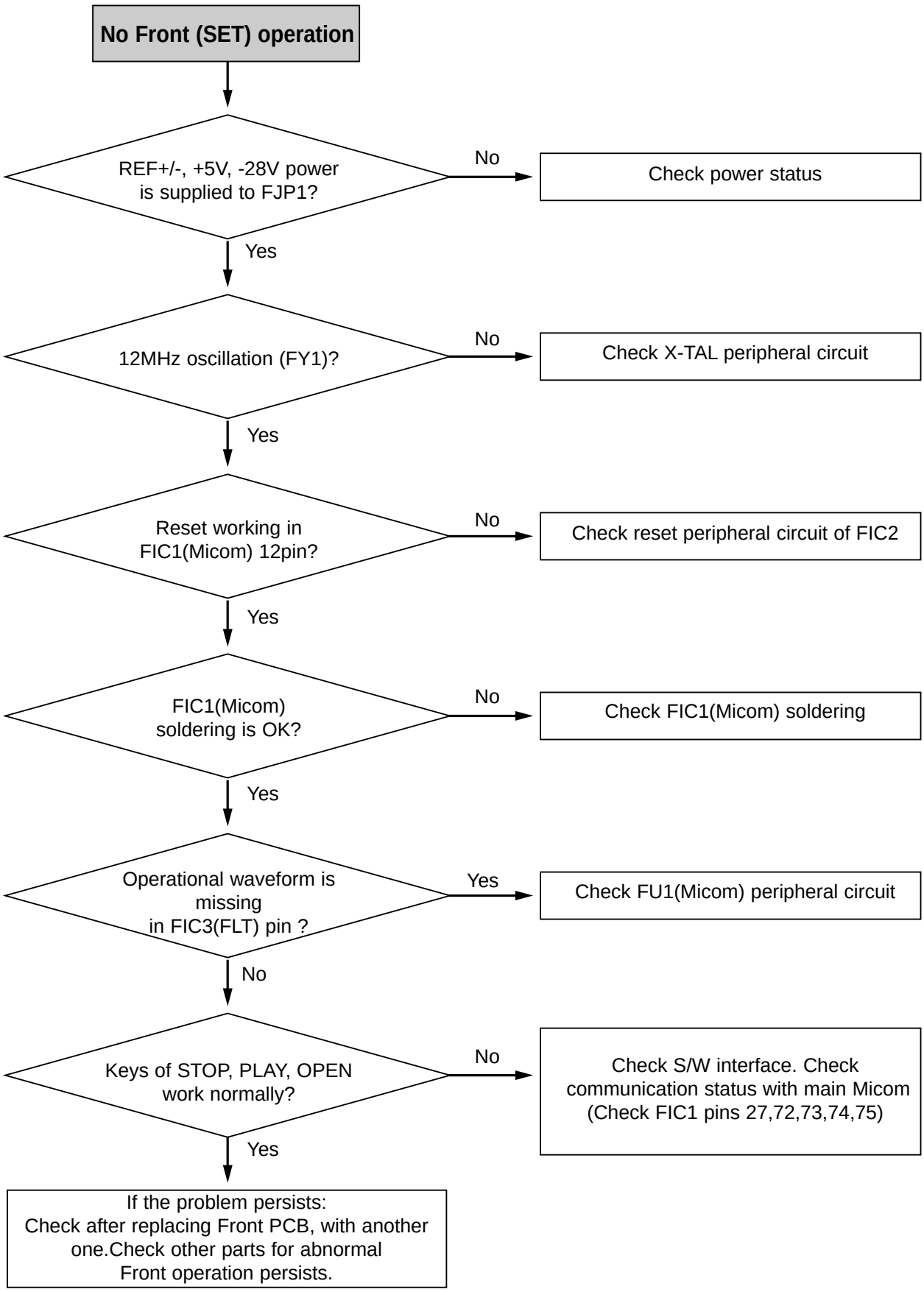

F
AIC17 (pin14,15) input is normal?
No
Check AIC8, 10, 12, 16 peripheral circuit
Yes
AIC17 (pin10,11) level are "L"?
No
Check MIC1 (pin89) output 'L'
Yes
AIC17 (pin2) output is normal?
No
Replace AIC17(14053)
Yes
Check AIC17 peripheral soldering and short

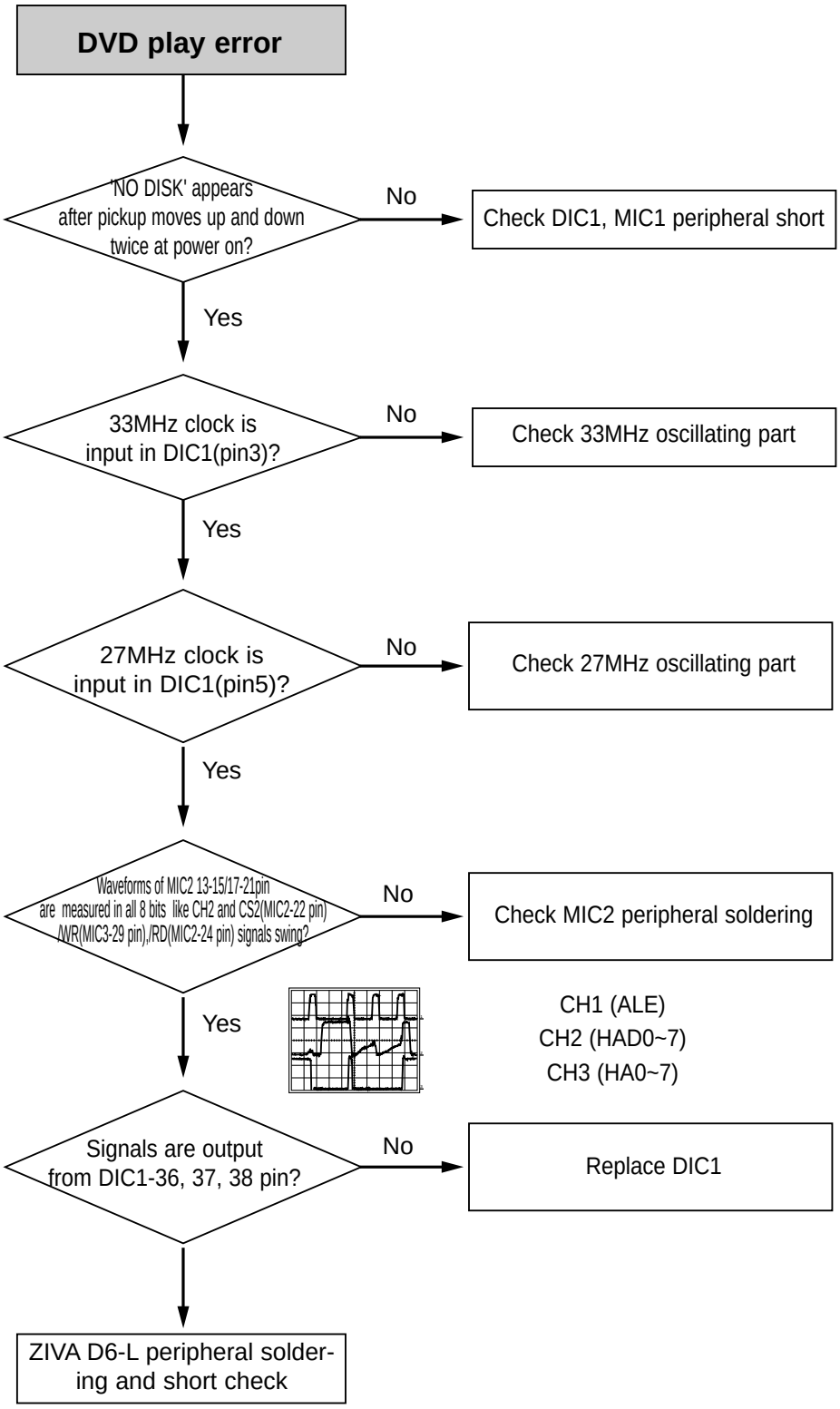

DIGITAL output error
Output in BIC1 (PIN129) is normal?
No
Check BIC1 peripheral circuit
Yes
Output in BIC11 (PIN4) is normal?
No
Check BIC11 IC
Yes
Check AJ3,4 peripherial solder-ing and SHORT.

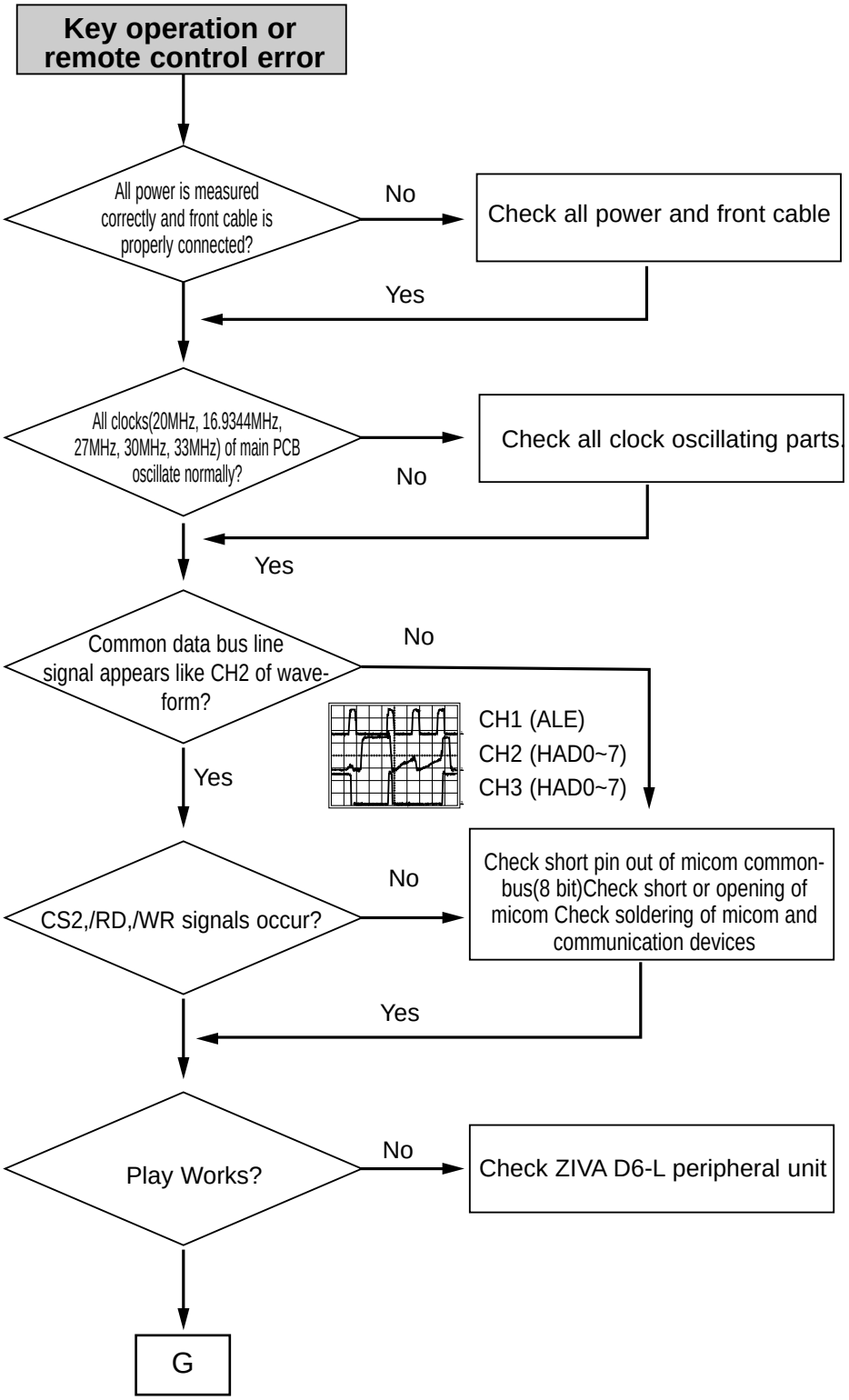

KARAOKE failure
Does KCN (6) turn into 'H' upon inserting a microphone?
No
Check peripheral circuits of MIC1, MIC2 and KCN1
Yes
Is the frequency of KCN2 (3) 415kHz ~506kHz?
No
Replace KIC2
Yes
Check insutticient solders or incorrect insertions on the Karaoke board in its entirety.

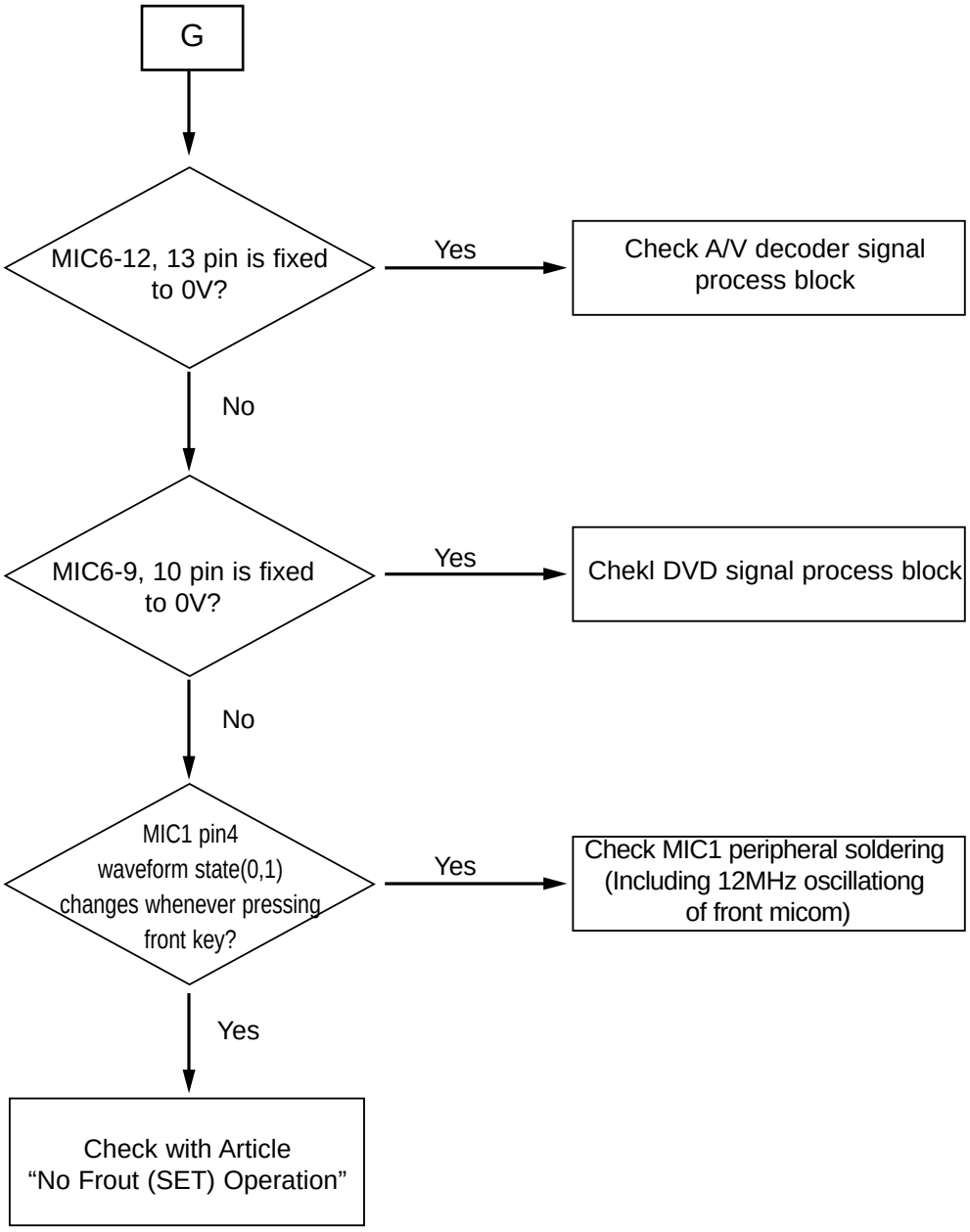
8-4. Thoubleshooting Etc




No Front (SET) operation
REF+/-, +5V, -28V power is supplied to FJP1?
No
Check power status
Yes
12MHz oscillation (FY1)?
No
Check X-TAL peripheral circuit
Yes
Reset working in FIC1(Micom) 12pin?
No
Check reset peripheral circuit of FIC2
Yes
FIC1(Micom) soldering is OK?
No
Check FIC1(Micom) soldering
Yes
Operational waveform is missing in FIC3(FLT) pin ?
Yes
Check FU1(Micom) peripheral circuit
No
Keys of STOP, PLAY, OPEN work normally?
No
Check S/W interface. Check communication status with main Micom (Check FIC1 pins 27,72,73,74,75)
Yes
If the problem persists:
Check after replacing Front PCB, with another one.Check other parts for abnormal
Front operation persists.


DVD play error
'NO DISK' appears after pickup moves up and down twice at power on?
No
Check DIC1, MIC1 peripheral short
Yes
33MHz clock is input in DIC1(pin3)?
No
Check 33MHz oscillating part
Yes
27MHz clock is input in DIC1(pin5)?
No
Check 27MHz oscillating part
Yes
Waveforms of MIC2 13-15/17-21pin are measured in all 8 bits like CH2 and CS2(MIC2-22 pin) /WR(MIC3-29 pin),/RD(MIC2-24 pin) signals swing?
No
Check MIC2 peripheral soldering
Yes
CH1 (ALE)
CH2 (HAD0~7)
CH3 (HA0~7)
Signals are output from DIC1-36, 37, 38 pin?
No
Replace DIC1
ZIVA D6-L peripheral solder-ing and short check


Key operation or remote control error
All power is measured correctly and front cable is properly connected?
No
Check all power and front cable
Yes
All clocks(20MHz, 16.9344MHz, 27MHz, 30MHz, 33MHz) of main PCB oscillate normally?
Check all clock oscillating parts.
No
Yes
Common data bus line signal appears like CH2 of wave-form?
No
CH1 (ALE)
CH2 (HAD0~7)
CH3 (HAD0~7)
Yes
CS2,/RD,/WR signals occur?
No
Check short pin out of micom common-bus(8 bit)Check short or opening of micom Check soldering of micom and communication devices
Yes
Play Works?
No
Check ZIVA D6-L peripheral unit
G


G
MIC6-12, 13 pin is fixed to 0V?
Yes
Check A/V decoder signal process block
No
MIC6-9, 10 pin is fixed to 0V?
Yes
Chekl DVD signal process block
No
MIC1 pin4 waveform state(0,1) changes whenever pressing front key?
Yes
Check MIC1 peripheral soldering (Including 12MHz oscillationg of front micom)
Yes
Check with Article "No Frout (SET) Operation"

MEMO

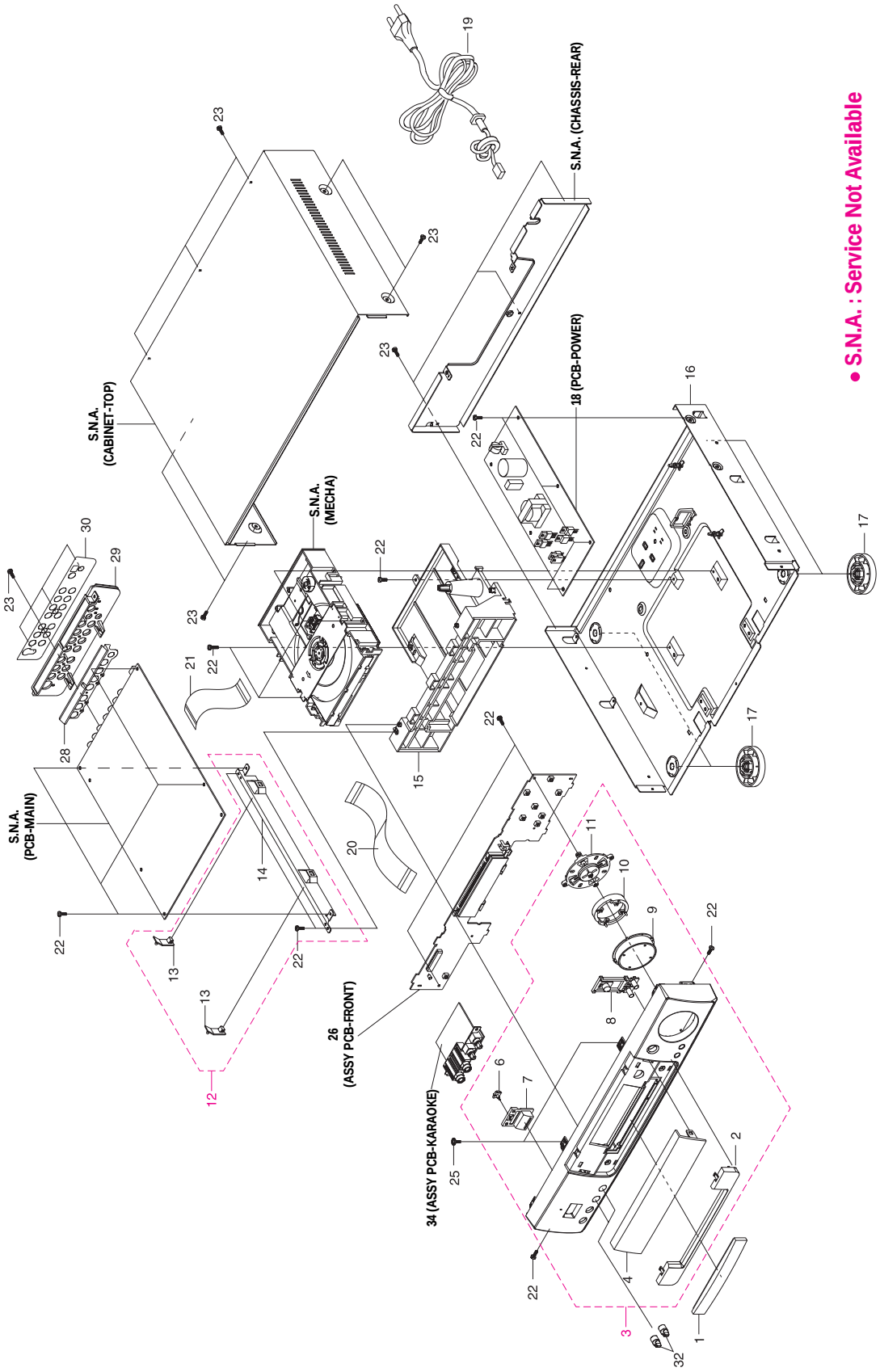
9. Exploded Views and Parts List

9-1 Exploded View

9-2 Deck Exploded View

9-3 Remote Control

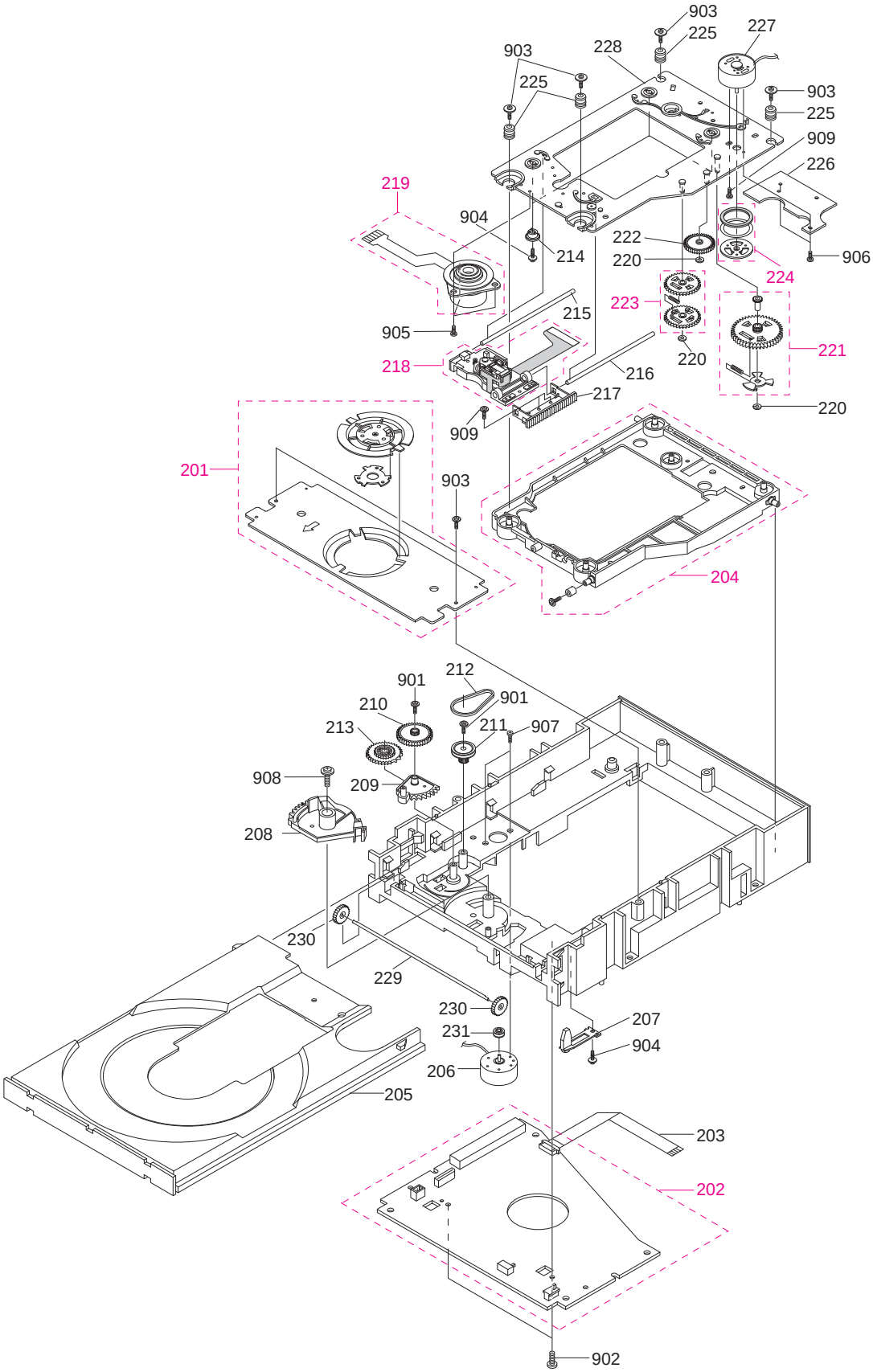
9-1 Exploded View



Loc. No	New Part No	Description and Specification	Remark
1	**Refer to Table Below**	ASSY-DOOR TRAY;ABS+PBS T0.2	
2	**Refer to Table Below**	COVER-CENTER;-,ABS94,HB,-,BLK,-,DVD907K	
3	**Refer to Table Below**	ASSY-CABINET FRONT;DVD-907K,ASSY	
4	**Refer to Table Below**	WINDOW-FLT;-,ACRYL,PMMA,855M,41802	
6	AH64-40419A	INDICATOR-POWER;-,ACRYL,MILKY	
7	**Refer to Table Below**	KNOB-POWER;-,ABS94,HB,BLK	
8	**Refer to Table Below**	KNOB-OPEN/CLOSE;-,ABS94,HB,BLK	
9	**Refer to Table Below**	KNOB-PLAY;-,ABS94,HB,BLK	
10	AH64-40422A	INDICATOR-PLAY;-,ABS,SILVER	
11	AH61-20474A	HOLDER-PLAY;-,ABS,WHITE	
12	AH95-50238A	ASSY-BRKT PCB;DVD-860K,SECC+NYLON,-	
13	AH61-20279A	HOLDER-PWB;NYLON66,-,-,-,VIP680T	
14	AH61-10692A	BRACKET-PCB;-,SECC,-,T1.0,NTR,-,DVD-860K	
15	AH61-10721B	FRAME-CHASSIS;-,ABS94,HB,-,L180,W240,H70	
16	**Refer to Table Below**	ASSY-CABINET BOTTOM;DVD-907,ASSY,EXPORT	
17	AH95-50252A	ASSY-FOOT;DVD-860,ABS+EVA SPONGE,-	
18	AH90-10747A	ASSY-PCB POWER;DVD-907,CHN	
19	AH39-10060Q	POWER-CORD;-,EP2(CHINA), RVVB,2.15MT,HSG	
20	3809-001025	CABLE-FLAT;30V,80C,270MM,28P,1.25MM,UL28	
21	3809-001024	CABLE-FLAT;30V,80C,150MM,40P,1.25MM,UL28	
22	6003-000276	SCREW-TAPTITE;BH,+,B,M3,L10,ZPC(YEL),SWC	
23	6003-000275	SCREW-TAPTITE;BH,+,B,M3,L10,BLK,SWCH101	
24	6003-000277	SCREW-TAPTITE;BH,+,B,M3,L12,ZPC(YEL),SWR	
25	6003-000256	SCREW-TAPTITE;BHW,+,B,M3,L10,ZPC(YEL),SM	
26	AH90-10750V	ASSY- PCB FRONT;DVD-907K, XTI	
28	AH63-40163B	GROUND-REAR;-,PBS,T0.2,-,DVD-907	
29	AH63-30228B	COVER-REAR;-,PC ABS,HB,T2,BLK,-,-,DVD905	
30	**Refer to Table Below**	INLAY-REAR;-,PVC SHEET,T0.5,L186.8 W36.2,	
32	**Refer to Table Below**	KNOB-VOLNME;-,ABS94HB	
34	AH90-10750Z	ASSY-PCB KARAOKE;DVD-907K,XTI	

LOCA-NO	DVD-907K	DVD-9901A (DVD-907KS)	DVD-808K	DVD-807K
1	AH95-50320C	AH95-20320C	AH95-50320D	AH95-50320D
2	AH63-30259A	AH63-00024A	AH63-30259C	AH63-30259B
3	AH95-10351A	AH95-10351E	AH95-10351C	AH95-10651B
4	AH64-40420C	AH64-40420H	AH64-40420F	AH64-40420D
7	AH64-11167D	AH64-11167H	AH64-11167G	AH64-11167E
8	AH64-11305A	AH64-11305D	AH64-11305C	AH64-11305B
9	AH64-11183D	AH64-11183H	AH64-11183G	AH64-11183E
16	AH95-10329B	AH95-10329B	AH95-10329C	AH95-10329C
30	AH64-60055K	AH64-60055K	AH64-60055G	AH64-60055G
32	AH64-11306A	AH64-11306D	AH64-11306C	AH64-11306B

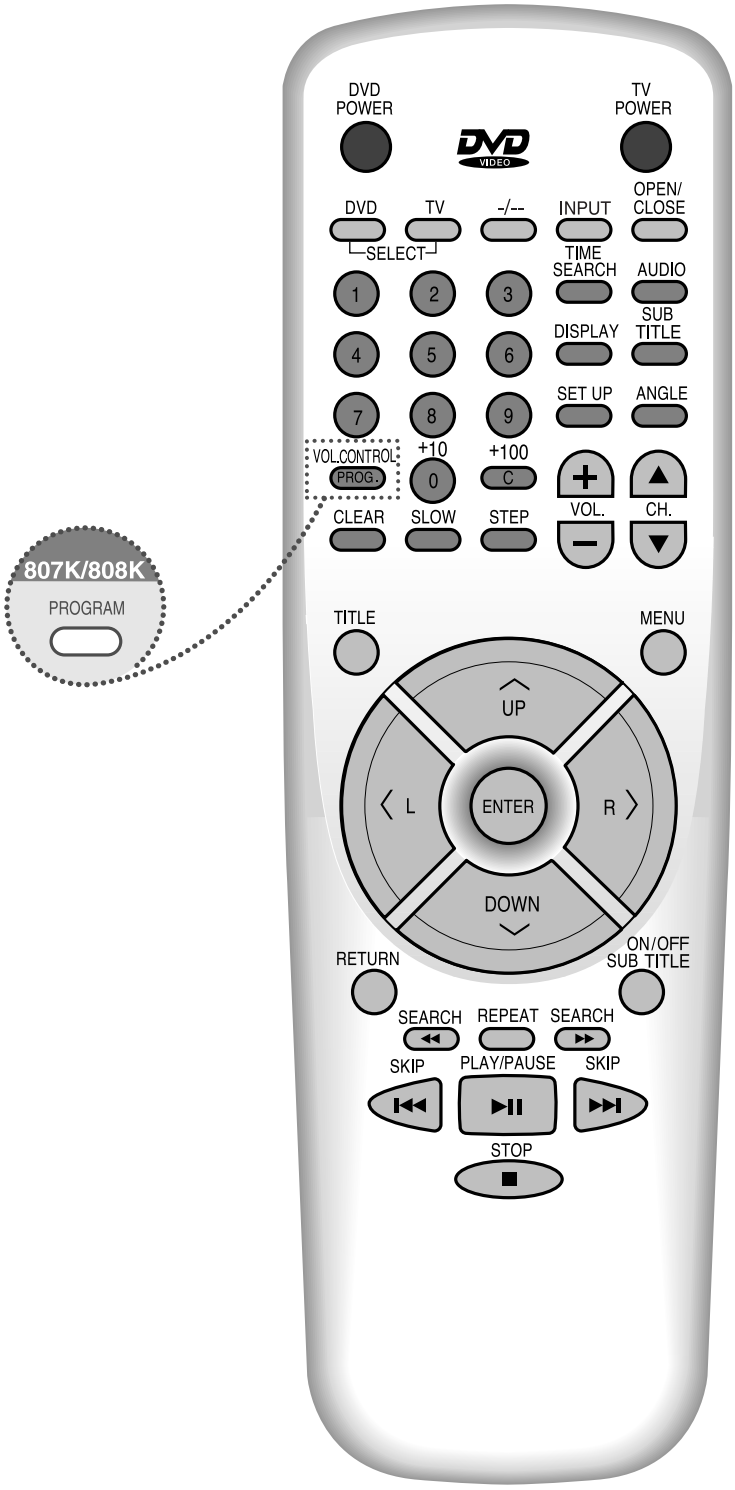
9-2 Deck Exploded View



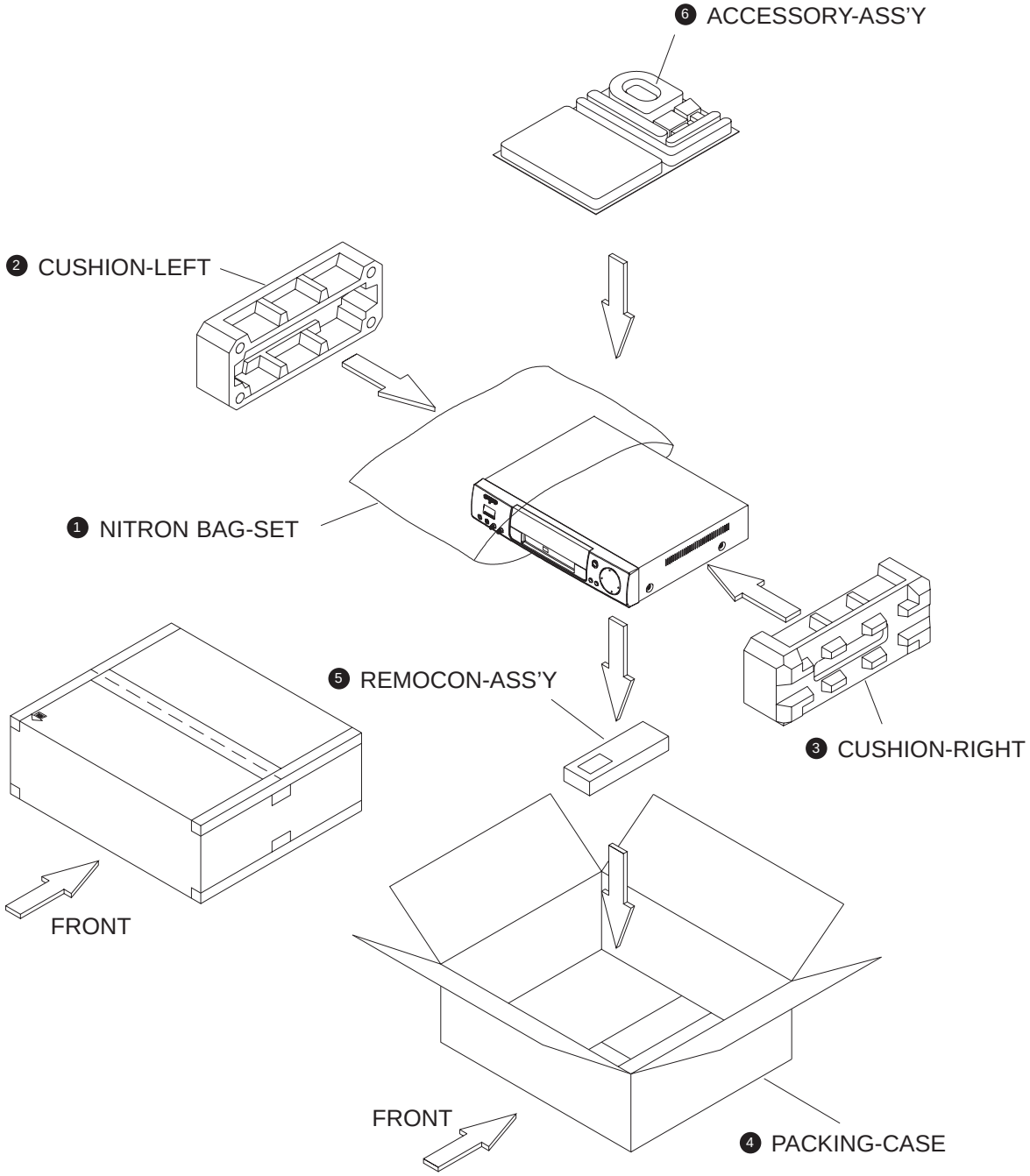
Loc. No	New Part No	Description and Specification	Remark
201	AH91-60117A	ASSY-DECK CLAMPER;DVD860,-,DP-1	
202	AH90-10685B	ASSY-PCB DECK;DVD860,DOM	
203	3809-001030	CABLE-FLAT;30V,80C,110MM,1MM,8P,UL2	
204	AH91-60126A	ASSY-CHASSIS SUB;DP-1,DVD860,-	
205	AH66-90054A	TRAY-DVD;DP,ABS,-,BLK,-,DP-1	
206	AH31-10028A	MOTOR-FEED;DP,RF-300C-11440,D/V5.9,60HZ	
207	AH66-30087A	LEVER-OPEN SW;DP,KEPITAL,T0.7,L26,F20-03 BLK	
208	AH66-20194A	GEAR-CAM CENTER;DP,KEPITAL F20-03,M1.2,Z7,BLK,	
209	AH66-20183A	GEAR-CAM SUB;DP,KEPITAL FT2020,M1,2,Z7,-,PC	
210	AH66-20185A	GEAR-TRAY A;DP,KEPITAL F20-03,M0.4/M0.5,Z5	
211	AH66-10024A	PULLEY-GEAR;DP,KEPITAL F20-03,BLK,DP-1	
212	AH66-60033A	BELT-PULLEY;DP,NBR,T1.5,0.08,L82.7,BLK,DP-	
213	AH66-20184A	GEAR-TRAY;DP,KEPITAL F20-03,M0.5/M0.6,Z4	
214	AH61-20424A	HOLDER-CAM;DP,KEPITAL,-,BLK,F20-03,DP-1	
215	AH61-50284A	SHAFT-P.U(L);DP,SUS420J2,OD3,L79,	
216	AH61-50278A	SHAFT-P.U(R);DP,SUS420J2,OD3,L87,-,NTR,DP-1	
217	AH66-20178A	RACK-SLIDE;DP,KEPITAL F20-03,WHT,M0.4,P1.	
218	AJ30-20035F	PICK-UP;SOH-D1A	
219	AH91-60134A	ASSY-MOTOR SPINDLE;DP-2,SDR-130	
220	AH60-30020A	WASHER-PLAIN;DP,-,ID3.1,OD6,T0.3,RED COLOR,	
221	AH91-60120A	ASSY-GEAR-FEED-AU/AL;DP-1,DVD-860,-	
222	AH66-20182A	GEAR-FEED B;DP,KEPITAL F20-03,M0.4,Z44,WHT	
223	AH91-60121A	ASSY-GEAR-FEED-CU/CL;DP-1,DVD-860,-	
224	AH91-60122A	ASSY-GEAR-MAGNET;DP-1,DVD-860,-	
225	AH73-10017A	RUBBER-INSULATOR;RUBBER(LB-40),OD11,DP-1,-	
226	AH90-10694A	ASSY-PCB HALL SENSOR;SDR-130,DOM	
227	AH31-10028A	MOTOR-FEED;DP,RF-300C-11440,D/V5.9,60HZ	
228	AH91-60125A	ASSY-BRKT DECK;DP-1,DVD860,-	
229	AH61-50279A	SHAFT-SYNCRO;DP,SUM24L+ZN,OD2,L119,ZPC,YEL,	
230	AH66-22005A	GEAR-SYNCRO-A;DP,KEPITAL F20-03,M0.5,Z16,BLK	
231	AH66-10023A	PULLEY-MOTOR;DP,KEPITAL F20-03,BLK,	
901	AH60-10151A	SCREW-TAP TITE;DP,SPEC6.8 ,PH,+,CP,M2,L5,ZPC	
902	AC60-10051A	SCREW-TAPPING;BH,-,-,M3,L8,FZY	
903	AH60-10143U	SCREW-TAP TITE;DP,PH,+,SPEC,TAP1.7,L5,ZPC	
904	AH60-10145A	SCREW-TAP TITE;DP,PH,+,SPEC OD5.5 FP,TAP1.7,L	
905	AH60-10147A	SCREW-MACHINE;DP,CH,+,FP,M2,L4,ZPC,SWRCH10A,	
906	AH60-10143Q	SCREW-MACHINE;DP,CH,+,FP,M1.7,L4,ZPC,SWRCH10	
907	6001-000012	SCREW-MACHINE;CH,+,M1.7,L2.0,NYLOCK(WHT),SW	
908	AC60-10042A	SCREW-TAPPING;PWH,+,-,M3,L8,-	
909	6001-000002	SCREW-MACHINE;CH,+,M1.7,L3	

9-3 Remote Control

AH59-10087H	REMOCON-ASSY;-,-,-,DVD-907/XTI,S.S	(DVD-907K)
AH59-10087R	REMOCON-ASSY;-,-,-,DVD-907/WYN	(DVD-9901A <DVD-907KS>)
AH59-10087K	REMOCON-ASSY;-,-,-,DVD-807K	(DVD-808K/807K)
AH64-50327A	DOOR-BATTERY;-,ABS94,HB,T2,L71 W60 H18,D/GR	



10. Packing Diagram



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11. Electrical Parts List

Loc. no.	Part No.	Description & Specification
S.N.A.	-	MAIN Board for DVD-907K/DVD-9901A
AC1	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC10	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC100	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC101	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC105	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC106	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
AC107	2401-000778	C-AL;220uF,20%,10V,GP,-,6.3x11,2.5m
AC108	2401-000778	C-AL;220uF,20%,10V,GP,-,6.3x11,2.5m
AC109	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC110	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC111	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC112	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
AC114	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
AC116	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC117	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC118	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
AC119	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
AC12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC13	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC14	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC15	2203-000783	C-CERAMIC,CHIP;330pF,5%,50V,NPO,TP,1608,
AC16	2203-001607	C-CERAMIC,CHIP;220pF,5%,50V,CH,TP,1608,1
AC17	2203-001607	C-CERAMIC,CHIP;220pF,5%,50V,CH,TP,1608,1
AC18	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC19	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC20	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC23	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC24	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC25	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC26	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC27	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC28	2203-005105	C-CERAMIC,CHIP;680pF,5%,50V,CH,TP,1608,1
AC29	2203-000315	C-CERAMIC,CHIP;120pF,5%,50V,NPO,TP,1608,
AC30	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
AC31	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC32	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC33	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC34	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC36	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC37	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC38	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC39	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC4	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC40	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC41	2203-005105	C-CERAMIC,CHIP;680pF,5%,50V,CH,TP,1608,1
AC42	2203-000315	C-CERAMIC,CHIP;120pF,5%,50V,NPO,TP,1608,
AC43	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
AC44	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC45	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC46	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC47	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC48	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC49	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC5	2203-000783	C-CERAMIC,CHIP;330pF,5%,50V,NPO,TP,1608,
AC50	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC51	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC52	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC53	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC54	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC55	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC56	2203-005105	C-CERAMIC,CHIP;680pF,5%,50V,CH,TP,1608,1
AC57	2203-000315	C-CERAMIC,CHIP;120pF,5%,50V,NPO,TP,1608,
AC58	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
AC59	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC6	2203-001607	C-CERAMIC,CHIP;220pF,5%,50V,CH,TP,1608,1
AC60	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC61	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC62	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC63	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC64	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC65	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC66	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC67	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC68	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC69	2203-005105	C-CERAMIC,CHIP;680pF,5%,50V,CH,TP,1608,1
AC7	2203-001607	C-CERAMIC,CHIP;220pF,5%,50V,CH,TP,1608,1
AC70	2203-000315	C-CERAMIC,CHIP;120pF,5%,50V,NPO,TP,1608,
AC71	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
AC72	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC73	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC76	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC77	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC78	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC79	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC80	2203-001630	C-CERAMIC,CHIP;330nF,+80-20%,16V,Y5V,TP,
AC81	2203-000372	C-CERAMIC,CHIP;15nF,10%,50V,X7R,TP,1608,
AC82	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC84	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC85	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC86	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC88	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC89	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC91	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC92	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC93	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC94	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC95	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC96	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC97	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC98	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC99	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AD11	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-
AD12	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-
AD4	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
AD5	0407-000116	DIODE-ARRAY;DAP202K,80V,100mA,CK2-3,SOT-
AD6	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
AD7	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
AD8	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-
AD9	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-
AIC1	1002-001129	IC-D/A CONVERTER;AK4324VF,24BIT,VSOP,24P
AIC10	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC11	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC12	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC13	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M

Loc. no.	Part No.	Description & Specification
AIC14	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC15	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC16	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC17	AH14-10004T	IC-ANALOG M/PLEXER;MC14053BD,SOP,TAPE 16
AIC2	1002-001052	IC-D/A CONVERTER;PCM1720E,16BIT,SOP,20P,
AIC3	1002-001051	IC-D/A CONVERTER;PCM1723E,16BIT,SOP,24P,
AIC4	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC5	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC6	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC7	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC8	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AJ3	3722-001134	JACK-RCA;1P,3.2mm,AU,BLK,-
AJ4	3707-001005	CONNECTOR-OPTICAL;PLUG,SM,-,4.4/2.0MM
AL1	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
AL10	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AL11	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AL12	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AL13	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AL14	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AL15	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AL16	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AL2	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
AL3	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
AL4	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
AL7	3301-000325	CORE-FERRITE BEAD;AB,3.2x2.5x1.3mm,-,-
AL8	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AL9	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AQ1	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ10	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ11	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ12	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ13	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ14	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ17	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ18	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ19	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ2	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
AQ20	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ21	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ22	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ25	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ26	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ27	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ28	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ3	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ31	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ32	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ33	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ34	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ35	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ36	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ4	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ5	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ6	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ9	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AR1	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR10	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR100	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR101	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR102	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR103	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR104	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR105	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
AR106	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
AR107	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
AR108	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608

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AR109	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR11	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR110	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR111	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR112	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR113	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR114	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR115	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR116	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR117	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR118	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608
AR119	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608
AR120	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608
AR121	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
AR122	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR123	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR124	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608
AR125	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR126	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR127	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR128	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
AR129	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR133	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
AR134	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
AR135	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR136	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR137	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
AR14	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR140	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
AR141	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR145	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608
AR146	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR147	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR148	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR149	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR15	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR150	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR151	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
AR152	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
AR153	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
AR156	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR157	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR158	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR159	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR16	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR160	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR17	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR171	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR172	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR173	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR174	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
AR175	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR176	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR177	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR178	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR179	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
AR18	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR180	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR182	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR184	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR19	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR2	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR20	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR21	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR22	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR23	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608

Loc. no.	Part No.	Description & Specification
AR24	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR25	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR26	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR27	2007-000965	R-CHIP;5.1Kohm,5%,1/16W,DA,TP,1608
AR28	2007-000329	R-CHIP;11Kohm,5%,1/16W,DA,TP,1608
AR29	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR3	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR30	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR34	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR35	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR36	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR37	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR38	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
AR39	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR4	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR40	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR41	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR42	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR43	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR44	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608
AR45	2007-000096	R-CHIP;30Kohm,5%,1/16W,DA,TP,1608
AR46	2007-000616	R-CHIP;24Kohm,5%,1/16W,DA,TP,1608
AR47	2007-000096	R-CHIP;30Kohm,5%,1/16W,DA,TP,1608
AR48	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR49	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR5	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR50	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR51	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR52	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR55	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR56	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR57	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR58	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR59	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR6	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR60	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR61	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR62	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR63	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR64	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608
AR65	2007-000616	R-CHIP;24Kohm,5%,1/16W,DA,TP,1608
AR66	2007-000096	R-CHIP;30Kohm,5%,1/16W,DA,TP,1608
AR67	2007-000096	R-CHIP;30Kohm,5%,1/16W,DA,TP,1608
AR68	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR69	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR7	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR70	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR71	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR75	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR76	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR77	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR78	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR79	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR8	2007-000965	R-CHIP;5.1Kohm,5%,1/16W,DA,TP,1608
AR80	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR81	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR82	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR83	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR84	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608
AR85	2007-000616	R-CHIP;24Kohm,5%,1/16W,DA,TP,1608
AR86	2007-000096	R-CHIP;30Kohm,5%,1/16W,DA,TP,1608
AR87	2007-000096	R-CHIP;30Kohm,5%,1/16W,DA,TP,1608
AR88	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR89	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR9	2007-000329	R-CHIP;11Kohm,5%,1/16W,DA,TP,1608
AR90	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR91	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR92	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR95	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR96	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR97	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR98	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR99	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
BC1	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC10	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
BC11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC13	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC14	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC16	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
BC17	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC18	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
BC19	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC20	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC24	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC25	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC26	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC27	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC28	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC29	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC30	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC31	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC32	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC33	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC34	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC36	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC37	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC38	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC39	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC4	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC40	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
BC41	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
BC42	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC43	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC44	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC45	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC9	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
BIC1	1204-001363	IC-DECODER;ZIBA-D6-LPB,208P,DVD-2
BIC10	0801-002166	IC-CMOS LOGIC;7SHU04,INVERTER,SSOP,5P,63
BIC11	0801-002097	IC-CMOS LOGIC;7SET08,AND GATE,SOP,5P,110
BIC12	0801-002096	IC-CMOS LOGIC;7SH08,AND GATE,SSOP,5P,63M
BIC2	1102-001042	IC-EPROM;27C4096,256Kx16BIT,DIP,40P,600
BIC2A	3704-000272	SOCKET-IC;40P,DIP,SN,2.54mm
BIC3	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC4	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC5	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC6	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC7	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC8	0801-002206	IC-CMOS LOGIC;74HC157,MULTIPLEXER,SOP,16
BIC9	0801-002206	IC-CMOS LOGIC;74HC157,MULTIPLEXER,SOP,16
BR1	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608

Loc. no.	Part No.	Description & Specification
BR10	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR11	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR12	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR13	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR14	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR15	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR16	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR17	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
BR18	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
BR19	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
BR2	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR20	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR21	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR22	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
BR23	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
BR24	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR25	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR26	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR27	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR28	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR29	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR3	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR30	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR31	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR32	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR33	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR34	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR35	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR36	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR37	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR38	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR39	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR4	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR40	2007-000120	R-CHIP;680ohm,5%,1/16W,DA,TP,1608
BR41	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608
BR5	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR6	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR7	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR8	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR9	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BY1	2801-003366	CRYSTAL-UNIT;30MHZ,50PPM,28-AAM,20PF,60O
CN1	3708-001085	CONNECTOR-FPC/FC/PIC;40P,1.25mm,STRAIGHT
DA1	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DA2	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DA3	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DA4	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DA5	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DC1	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC11	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
DC12	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
DC13	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC14	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC16	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC17	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC18	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC19	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC20	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC21	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC22	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC24	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC27	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC28	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,

Loc. no.	Part No.	Description & Specification
DC29	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC30	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
DC31	2203-000783	C-CERAMIC,CHIP;330pF,5%,50V,NPO,TP,1608,
DC32	2203-000783	C-CERAMIC,CHIP;330pF,5%,50V,NPO,TP,1608,
DC33	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
DC34	2203-000315	C-CERAMIC,CHIP;120pF,5%,50V,NPO,TP,1608,
DC35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC36	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
DC37	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC38	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC39	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC4	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
DC40	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
DC41	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC42	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC43	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC44	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
DC45	2203-000626	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,1608,-
DC46	2203-000626	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,1608,-
DC47	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC48	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC49	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC50	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DCN1	3708-001086	CONNECTOR-FPC/FC/PIC;28P,1.25mm,STRAIGHT
DD1	0405-000106	DIODE-VARACTOR;1SV228,15V,10NA,SOT-23,TP
DIC1	AH13-10030F	IC-ASIC;-,TC90A19F,QFP,100,DATA PROC.I
DIC2	1105-001038	IC-DRAM;48C512,512Kx8BIT,SOJ,28P,400MI
DIC3	0801-002166	IC-CMOS LOGIC;7SHU04,INVERTER,SSOP,5P,63
DIC6	1201-000211	IC-OP AMP;272A,SOP,8P,150MIL,DUAL,7.5V/m
DIC7	0501-000199	TR-SMALL SIGNAL;2SC2714-Y,NPN,100MW,SOT-
DIC8	0801-002115	IC-CMOS LOGIC;7SH04F,INVERTER,SOP,5P,49.
DIC9	AH14-10004R	IC;M74HCU04,SOP,TAPE 14P
DL1	2703-000401	INDUCTOR-SMD;1uH,10%,3.2x2.5x2.2mm
DL2	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL3	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL5	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL6	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL7	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL8	2007-000729	R-CHIP;300ohm,5%,1/16W,DA,TP,1608
DL9	2901-001040	FILTER-EMI SMD;COMP PLUS P-MISC AU,SECUR
DR1	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
DR10	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608
DR11	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
DR12	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
DR13	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
DR14	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
DR15	2007-000067	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
DR16	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
DR17	2007-007445	R-CHIP;9.1Kohm,5%,1/16W,DA,TP,1608
DR18	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
DR19	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
DR2	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608
DR20	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608
DR21	2007-000127	R-CHIP;9.1Kohm,5%,1/16W,DA,TP,1608
DR22	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
DR26	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
DR27	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR28	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
DR29	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
DR3	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608

Loc. no.	Part No.	Description & Specification
DR30	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
DR31	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR32	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
DR33	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
DR36	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR37	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR38	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR4	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
DR40	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR45	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR46	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
DR47	2007-000402	R-CHIP;150ohm,5%,1/16W,DA,TP,1608
DR48	2007-000120	R-CHIP;680ohm,5%,1/16W,DA,TP,1608
DR49	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
DR5	2007-000729	R-CHIP;300ohm,5%,1/16W,DA,TP,1608
DR6	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR7	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
DR8	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
DR9	2007-000129	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608
DY1	2801-003255	CRYSTAL-UNIT;33MHZ,20PPM,28-AAA,16PF,30O
DY2	2801-003348	CRYSTAL-UNIT;27MHZ,20PPM,28-AAM,20PF,20O
EL2	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
EL3	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
EL4	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
KCN1	3711-003112	CONNECTORHEADER;BOX,8P,1R,2.5mm,STRAIGH
LC1	2203-001554	C-CERAMIC,CHIP;1.8nF,10%,50V,X7R,TP,1608
LC11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC2	2203-001052	C-CERAMIC,CHIP;560pF,10%,50V,X7R,TP,1608
LC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LIC1	0801-002088	IC-CMOS LOGIC;7S86,X-OR GATE,SOT-25,5P,6
LIC2	0801-002088	IC-CMOS LOGIC;7S86,X-OR GATE,SOT-25,5P,6
LIC3	1202-000143	IC-VOLTAGE COMP.;75S393,SOP,5P,-,SINGLE,
LIC3A	1202-000143	IC-VOLTAGE COMP.;75S393,SOP,5P,-,SINGLE,
LIC4	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
LIC6	0801-002145	IC-CMOS LOGIC;7W74,D FLIP-FLOP,SOP,8P,12
LIC7	0801-002143	IC-CMOS LOGIC;7S32,OR GATE,SOT-25,5P,63M
LIC8	0801-002144	IC-CMOS LOGIC;7W04,INVERTER,SOP,8P,122MI
LR1	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
LR10	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
LR11	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
LR12	2007-000098	R-CHIP;56Kohm,5%,1/16W,DA,TP,1608
LR14	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
LR16	2007-000965	R-CHIP;5.1Kohm,5%,1/16W,DA,TP,1608
LR17	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
LR2	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608
LR3	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608
LR4	2007-000098	R-CHIP;56Kohm,5%,1/16W,DA,TP,1608
LR5	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
LR6	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
LR7	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
LR8	2007-000259	R-CHIP;1.6Kohm,5%,1/16W,DA,TP,1608
LR9	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
MC1	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
MC10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC13	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC14	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
MC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC16	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC17	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC2	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP

Loc. no.	Part No.	Description & Specification
MC20	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC4	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MIC1	0903-001144	IC-MICROCONTROLLER;93CM41,8BIT,QFP,100P,
MIC2	1102-001088	IC-EPROM;27C040,512Kx8BIT,DIP,32P,600MI
MIC2A	3704-000472	SOCKET-IC;32P,DIP,SN,2.54mm
MIC3	1106-001259	IC-SRAM;621024,128KX8BIT,SOP,32P,525MIL,
MIC4	0801-002207	IC-CMOS LOGIC;74AC573,LATCH,SOP,20P,300M
MIC5	1103-001048	IC-EEPROM;24C02,256x8BIT,SOP,8P,150MIL,1
MIC6	0801-001054	IC-CMOS LOGIC;74VHC00,NAND GATE,SOP,14P,
MIC7	0801-000411	IC-CMOS LOGIC;74HC32,OR GATE,SOP,14P,150
MR1	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR10	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR11	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
MR12	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR13	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
MR15	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
MR18	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
MR19	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR2	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR20	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR21	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR22	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR23	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR24	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR25	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR26	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR27	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR28	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR29	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
MR3	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR30	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR32	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR35	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR36	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR38	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR39	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR4	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR40	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR41	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
MR43	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR44	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR46	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR48	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR5	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR54	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
MR55	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
MR56	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
MR57	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR58	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR59	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
MR6	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR60	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR61	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
MR62	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR63	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
MR7	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR8	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR9	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608

Loc. no.	Part No.	Description & Specification
MY1	2801-000199	CRYSTAL-UNIT;20MHz,50ppm,28-AAA,16pF,50o
PC1	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
PC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
PC3	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
PC4	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
PC5	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5
PC6	2401-001969	C-AL;470uF,20%,25V,GP,TP,10x12.5,5
PCN1	3711-000736	CONNECTOR-HEADER;BOX,18P,1R,2.5mm,STRAIG
PD1	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
PD2	0403-001079	DIODE-ZENER;UDZ3.9B,3.9V,7%,200mW,SOD323
PQ1	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
PQ2	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
PQ3	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
PR1	2007-000245	R-CHIP;1.5KOHM,5%,1/8W,DA,TP,3216
PR2	2007-000293	R-CHIP;100OHM,5%,1/8W,DA,TP,3216
Q1	0501-002082	TR-SMALL SIGNAL;HN1C01F,NPN,300MV,SC-74,
Q2	0504-000126	TR-DIGITAL;KSR1101,NPN,200mW,4.7K-4.7K,S
RC1	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC11	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
RC12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC12A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC13	2203-001697	C-CERAMIC,CHIP;.082NF,5%,50V,NPO,TP,1608
RC13A	2401-002062	C-AL;3.3UF,20%,50V,GP,TP,5X11,2.5
RC14	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC16	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC17	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC18	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC19	2203-000315	C-CERAMIC,CHIP;120pF,5%,50V,NPO,TP,1608,
RC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC20	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC21A	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
RC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC22A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC24	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC24A	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
RC25	2203-000405	C-CERAMIC,CHIP;180pF,5%,50V,NPO,TP,1608,
RC26	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
RC27	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
RC28	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
RC29	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
RC2A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC3	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
RC30A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC30C	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC31	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC32	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC33	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC34	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC36	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC37	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
RC38	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
RC39	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
RC4	2203-002398	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,1608,
RC40	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
RC41	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC50	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC50A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC51	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC6	2203-002398	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,1608,
RC7	2401-002036	C-AL;1uF,20%,50V,GP,TP,5x11,2.5mm
RC8	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5

Loc. no.	Part No.	Description & Specification
RC8A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC9A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RCA3	3722-001145	JACK-RCA;6P/2C,3.2mm,AU,G/W/R,NO
RCA8S	3722-001137	JACK-RCA;2P,3.2mm,AU,BLACK,-
RIC1	AH13-10030H	IC-ASIC;-,TA1236F,QFP,64P,RF IC
RIC2	AH13-10030J	IC-ASIC;-,TA1253FN,SSOP,24P,DPD IC
RIC3	1201-001054	IC-OP AMP;650,SOP,8P,-,SINGLE,-,PLASTIC,
RL1	2703-000398	INDUCTOR-SMD;10UH,10%,3.2X2.5X2.2MM
RL10	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
RL10A	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
RQ1	0501-002034	TR-SMALL SIGNAL;SS9012,PNP,-40V,-20V,-50
RR10	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
RR11	2007-001026	R-CHIP;560Kohm,5%,1/16W,DA,TP,1608
RR12A	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR13A	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
RR14	2007-000122	R-CHIP;1.2Kohm,5%,1/16W,DA,TP,1608
RR18	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
RR18A	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
RR18B	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR19	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR20	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR21	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
RR22	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR23	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR24	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR25	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
RR26	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608
RR26A	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR28	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR28A	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
RR29	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR3	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR30	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR31	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR31A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR33	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR34	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608
RR35	2007-000130	R-CHIP;39Kohm,5%,1/16W,DA,TP,1608
RR36	2007-000616	R-CHIP;24Kohm,5%,1/16W,DA,TP,1608
RR36A	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR37	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608
RR38	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608
RR38A	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
RR38B	2007-000129	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608
RR38C	2007-001010	R-CHIP;51Kohm,5%,1/16W,DA,TP,1608
RR40	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608
RR40A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR41A	2007-000101	R-CHIP;82Kohm,5%,1/16W,DA,TP,1608
RR43	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
RR45	2007-000704	R-CHIP;3.6Kohm,5%,1/16W,DA,TP,1608
RR46	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR5	2007-000119	R-CHIP;560ohm,5%,1/16W,DA,TP,1608
RR50	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
RR51	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
RR53	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR54	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR6	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR7	2007-000361	R-CHIP;12ohm,5%,1/10W,DA,TP,2012
SC1	2203-001052	C-CERAMIC,CHIP;560pF,10%,50V,X7R,TP,1608
SC10	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC11	2203-001656	C-CERAMIC,CHIP;470pF,5%,50V,CH,TP,1608,1
SC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC19	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC2	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC20	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-

Loc. no.	Part No.	Description & Specification
SC21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC24	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC25	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC25A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC26	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
SC26A	2203-000888	C-CERAMIC,CHIP;4.7nF,10%,50V,X7R,TP,1608
SC27	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC28	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC28A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC29	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC31	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC32	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC33	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC34	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC36	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC37	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC39	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC4	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC40	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC41	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC42	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC43	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
SC43A	2203-002398	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,1608,
SC44	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
SC45	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC46	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC47	2203-000372	C-CERAMIC,CHIP;15nF,10%,50V,X7R,TP,1608,
SC48	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC49	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC5	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC50	2203-000726	C-CERAMIC,CHIP;3.9nF,10%,50V,X7R,TP,1608
SC50A	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
SC51	2203-000726	C-CERAMIC,CHIP;3.9nF,10%,50V,X7R,TP,1608
SC52	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC53	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC54	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC55	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC55A	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC56	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC58	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC59	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC5A	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC5B	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC6	2203-001052	C-CERAMIC,CHIP;560pF,10%,50V,X7R,TP,1608
SC60	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC62	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC63	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC63A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC65	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC67	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC69	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC70	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC71	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
SC72	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC73	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC8	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
SC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SIC1	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
SIC2	BG13-10030A	IC-ASIC;KA9250D-STF,SOP,24P,HALL CONTR
SIC4	1003-001083	IC-MOTOR DRIVER;BA5924FP,SOP,28P,767MIL,
SIC4A	AH62-30125A	HEAT SINK-IC;-,CU,-,T0.3,-,YEL,-,DVD-905

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SIC5	1003-001044	IC-MOTOR DRIVER;BA6840BFP,SOP,28P,292MIL
SIC6	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
SIC7	AH13-10030G	IC-ASIC;-,TC9420F,QFP,100P,DIGITAL SER
SIC8	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
SQ1	0505-000191	FET-SILICON;2SK184Y,N,-,-,-,200MW,TO-92
SQ11	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ12	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ13	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ14	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ15	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ16	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ2	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ2A	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ3	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
SR1	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
SR10	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
SR100	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR101	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR102	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR103	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR11	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR12	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608
SR13	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
SR13A	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
SR13B	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR13C	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR13D	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR14	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608
SR15	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
SR16	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR17	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR18	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR19	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR2	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
SR20	2007-000106	R-CHIP;220Kohm,5%,1/16W,DA,TP,1608
SR21	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
SR22	2007-000107	R-CHIP;470Kohm,5%,1/16W,DA,TP,1608
SR23	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
SR24	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
SR24A	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
SR25	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
SR25A	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
SR26	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR27	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR27A	2007-000133	R-CHIP;330Kohm,5%,1/16W,DA,TP,1608
SR28A	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR28B	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR28C	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR29	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR29A	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR3	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
SR30	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR30A	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
SR30B	2007-000127	R-CHIP;9.1Kohm,5%,1/16W,DA,TP,1608
SR31	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608
SR32	2007-000101	R-CHIP;82Kohm,5%,1/16W,DA,TP,1608
SR33	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608
SR34	2007-000450	R-CHIP;180ohm,5%,1/16W,DA,TP,1608
SR34A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR34B	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR35	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
SR36	2007-000450	R-CHIP;180ohm,5%,1/16W,DA,TP,1608
SR36A	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR36B	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR37	2007-007157	R-CHIP;1ohm,5%,1/4W,DA,TP,3216
SR37A	2007-007157	R-CHIP;1ohm,5%,1/4W,DA,TP,3216

Loc. no.	Part No.	Description & Specification
SR38	2007-000458	R-CHIP;18Kohm,5%,1/16W,DA,TP,1608
SR39	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR4	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
SR40	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608
SR41	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR42	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
SR43	2007-000458	R-CHIP;18Kohm,5%,1/16W,DA,TP,1608
SR44	2007-000099	R-CHIP;62Kohm,5%,1/16W,DA,TP,1608
SR44A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR45	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR49	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR5	2007-000129	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608
SR50	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR51	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
SR52	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR53	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR54	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR55	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR56	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR56A	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR57	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR58	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR59	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR6	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608
SR60	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR61A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR61B	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR63	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR63A	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR68	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR7	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608
SR70	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608
SR71	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
SR73	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR74	2007-000065	R-CHIP;2.2Mohm,5%,1/16W,DA,TP,1608
SR77	2007-000133	R-CHIP;330Kohm,5%,1/16W,DA,TP,1608
SR78	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR79	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608
SR8	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608
SR80	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR81	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR82	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR83	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR85	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR89	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR9	2007-000129	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608
SR90	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR93	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR96	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR97	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR98	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
SR99	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
SX1	2801-003256	CRYSTAL-UNIT;16.9344MHZ,20PPM,28-AAA,18P
VC1	2401-001479	C-AL;470uF,20%,10V,GP,-,-,TP
VC10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC11	2401-001479	C-AL;470uF,20%,10V,GP,-,-,TP
VC12	2401-001479	C-AL;470uF,20%,10V,GP,-,-,TP
VC13	2401-001479	C-AL;470uF,20%,10V,GP,-,-,TP
VC14	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC15	2401-001479	C-AL;470uF,20%,10V,GP,-,-,TP
VC16	2401-001479	C-AL;470uF,20%,10V,GP,-,-,TP
VC17	2401-001479	C-AL;470uF,20%,10V,GP,-,-,TP
VC18	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC4	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC7	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
VC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC9	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
VF1	2909-001022	FILTER-LC;-,0~+7.5MHZ,4.5DB,TP,1.5~4.5DB
VF2	2909-001022	FILTER-LC;-,0~+7.5MHZ,4.5DB,TP,1.5~4.5DB
VIC1	1204-001366	IC-VIDEO ENCODER;SAA7128,QFP,44P,-,PLAST
VJ1	3722-001284	JACK-RCA;5P(6P),3.2mm,AU,BLK,-
VJ2	3722-001133	JACK-DIN;4P,-,NI,BLK,-
VL1	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
VL11	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
VL12	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
VL13	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
VL14	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
VL15	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
VL16	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
VL17	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
VL2	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
VL3	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
VQ1	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ14	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ15	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ16	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ2	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ21	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ22	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ23	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ24	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ25	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ26	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ3	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ31	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ32	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ33	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ34	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ4	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ41	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ42	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ43	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ44	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ45	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ46	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ5	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ51	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ52	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ53	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ54	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ55	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ56	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ6	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ61	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ62	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ63	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ64	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ65	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ66	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VR1	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR10	2007-000121	R-CHIP;820ohm,5%,1/16W,DA,TP,1608
VR100	2007-000121	R-CHIP;820ohm,5%,1/16W,DA,TP,1608
VR101	2007-000119	R-CHIP;560ohm,5%,1/16W,DA,TP,1608
VR102	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR103	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR104	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
VR105	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR106	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608

Loc. no.	Part No.	Description & Specification
VR107	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR108	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR109	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608
VR11	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR115	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
VR116	2007-000821	R-CHIP;390ohm,1%,1/16W,DA,TP,1608
VR117	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
VR118	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
VR119	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR12	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR120	2007-000121	R-CHIP;820ohm,5%,1/16W,DA,TP,1608
VR121	2007-000119	R-CHIP;560ohm,5%,1/16W,DA,TP,1608
VR122	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR123	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR124	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
VR125	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR126	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR127	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR128	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR129	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608
VR13	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR14	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
VR15	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR16	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR17	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR18	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR19	2007-001134	R-CHIP;68ohm,5%,1/16W,DA,TP,1608
VR2	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR23	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR24	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
VR25	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR26	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR27	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR28	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR29	2007-001134	R-CHIP;68ohm,5%,1/16W,DA,TP,1608
VR3	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
VR35	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
VR36	2007-000821	R-CHIP;390ohm,1%,1/16W,DA,TP,1608
VR37	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
VR38	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
VR39	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR4	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
VR40	2007-000121	R-CHIP;820ohm,5%,1/16W,DA,TP,1608
VR41	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR42	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR43	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR44	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
VR45	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR46	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR47	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR48	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR49	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608
VR5	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
VR55	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
VR56	2007-000821	R-CHIP;390ohm,1%,1/16W,DA,TP,1608
VR57	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
VR58	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
VR59	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR6	2007-000821	R-CHIP;390ohm,1%,1/16W,DA,TP,1608
VR60	2007-000121	R-CHIP;820ohm,5%,1/16W,DA,TP,1608
VR61	2007-001157	R-CHIP;750ohm,5%,1/16W,DA,TP,160
VR62	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR63	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR64	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
VR65	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
VR66	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608

Loc. no.	Part No.	Description & Specification
VR7	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
VR75	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
VR76	2007-000821	R-CHIP;390ohm,1%,1/16W,DA,TP,1608
VR77	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
VR78	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
VR79	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR8	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
VR80	2007-000121	R-CHIP;820ohm,5%,1/16W,DA,TP,1608
VR81	2007-000119	R-CHIP;560ohm,5%,1/16W,DA,TP,1608
VR82	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR83	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR84	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
VR85	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR86	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR87	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR88	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR89	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608
VR9	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR95	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
VR96	2007-000821	R-CHIP;390ohm,1%,1/16W,DA,TP,1608
VR97	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
VR98	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
VR99	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VSW1	3408-000277	SWITCH-SLIDE;50V,300mA,DP3T,-,KSA-2372

Loc. no.	Part No.	Description & Specification
S.N.A.	**-**	**MAIN Board for DVD-807K, DVD-808K**
AC1	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC10	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC100	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC105	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC106	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
AC107	2401-000778	C-AL;220uF,20%,10V,GP,-,6.3x11,2.5m
AC108	2401-000778	C-AL;220uF,20%,10V,GP,-,6.3x11,2.5m
AC109	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC110	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC111	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC112	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
AC114	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
AC116	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC117	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC118	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
AC119	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
AC12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC13	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC14	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC15	2203-000783	C-CERAMIC,CHIP;330pF,5%,50V,NPO,TP,1608,
AC16	2203-001607	C-CERAMIC,CHIP;220pF,5%,50V,CH,TP,1608,1
AC17	2203-001607	C-CERAMIC,CHIP;220pF,5%,50V,CH,TP,1608,1
AC18	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC19	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC20	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC23	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
AC4	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC5	2203-000783	C-CERAMIC,CHIP;330pF,5%,50V,NPO,TP,1608,
AC51	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC52	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
AC53	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC54	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC6	2203-001607	C-CERAMIC,CHIP;220pF,5%,50V,CH,TP,1608,1
AC7	2203-001607	C-CERAMIC,CHIP;220pF,5%,50V,CH,TP,1608,1
AC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC91	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC92	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC93	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC94	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC95	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC96	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC97	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AC98	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
AC99	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
AD11	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-
AD12	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-
AD4	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
AD5	0407-000116	DIODE-ARRAY;DAP202K,80V,100mA,CK2-3,SOT-
AD8	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-
AD9	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-
AIC1	1002-001129	IC-D/A CONVERTER;AK4324VF,24BIT,VSOP,24P
AIC3	1002-001051	IC-D/A CONVERTER;PCM1723E,16BIT,SOP,24P,
AIC4	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC5	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC6	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AIC7	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
AJ3	3722-001134	JACK-RCA;1P,3.2mm,AU,BLK,-
AL1	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
AL10	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8

Loc. no.	Part No.	Description & Specification
AL2	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
AL3	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
AL4	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
AL8	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AL9	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
AQ1	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ10	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ2	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
AQ27	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ28	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ3	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ31	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ32	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ33	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ34	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
AQ35	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ36	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ4	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
AQ5	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ6	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AQ9	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
AR1	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR10	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR11	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR111	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR112	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR113	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR134	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
AR135	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR136	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR137	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
AR14	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR140	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
AR141	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR145	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608
AR146	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR147	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR148	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR149	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR15	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR150	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR151	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
AR153	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
AR156	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR157	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR158	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR159	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR16	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR160	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
AR17	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR171	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR172	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR173	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR174	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
AR175	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR176	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR177	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR178	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR179	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
AR180	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
AR182	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR184	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR19	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR2	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR20	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR21	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608

Loc. no.	Part No.	Description & Specification
AR22	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR23	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR24	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR25	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR26	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR28	2007-000329	R-CHIP;11Kohm,5%,1/16W,DA,TP,1608
AR29	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR3	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR30	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR34	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR35	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
AR36	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
AR4	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR5	2007-001056	R-CHIP;6.2Kohm,5%,1/16W,DA,TP,1608
AR6	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
AR7	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
AR9	2007-000329	R-CHIP;11Kohm,5%,1/16W,DA,TP,1608
BC1	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC10	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
BC11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC13	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC14	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC16	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
BC17	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC18	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
BC19	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC20	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC24	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC25	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC26	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC27	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC28	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC29	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC30	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC31	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC32	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC33	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC34	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC36	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC37	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC38	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC39	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC4	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC40	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
BC41	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
BC42	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC43	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC44	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC45	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
BC9	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
BIC1	1204-001363	IC-DECODER;ZIBA-D6-LPB,208P,DVD-2
BIC10	0801-002166	IC-CMOS LOGIC;7SHU04,INVERTER,SSOP,5P,63
BIC11	0801-002097	IC-CMOS LOGIC;7SET08,AND GATE,SOP,5P,110
BIC12	0801-002096	IC-CMOS LOGIC;7SH08,AND GATE,SSOP,5P,63M

Loc. no.	Part No.	Description & Specification
BIC2	1102-001042	IC-EPROM;27C4096,256Kx16BIT,DIP,40P,600
BIC2A	3704-000272	SOCKET-IC;40P,DIP,SN,2.54mm
BIC3	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC4	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC5	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC6	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC7	1105-001233	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400MI
BIC8	0801-002206	IC-CMOS LOGIC;74HC157,MULTIPLEXER,SOP,16
BIC9	0801-002206	IC-CMOS LOGIC;74HC157,MULTIPLEXER,SOP,16
BR1	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR10	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR11	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR12	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR13	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR14	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR15	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR16	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR17	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
BR18	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
BR19	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
BR2	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR20	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR21	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR22	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
BR23	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
BR24	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR25	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR26	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR27	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR28	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR29	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR3	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR30	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR31	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR32	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR33	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
BR34	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR35	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR36	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR37	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR38	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR39	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
BR4	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR40	2007-000120	R-CHIP;680ohm,5%,1/16W,DA,TP,1608
BR41	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608
BR5	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR6	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR7	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR8	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BR9	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608
BY1	2801-003366	CRYSTAL-UNIT;30MHZ,50PPM,28-AAM,20PF,60O
CN1	3708-001085	CONNECTOR-FPC/FC/PIC;40P,1.25mm,STRAIGHT
DA1	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DA2	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DA3	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DA4	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DA5	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
DC1	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC11	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
DC12	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
DC13	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC14	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC16	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC17	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,

Loc. no.	Part No.	Description & Specification
DC18	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC19	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC20	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC21	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC22	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC24	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC27	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC28	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC29	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC30	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608
DC31	2203-000783	C-CERAMIC,CHIP;330pF,5%,50V,NPO,TP,1608,
DC32	2203-000783	C-CERAMIC,CHIP;330pF,5%,50V,NPO,TP,1608,
DC33	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
DC34	2203-000315	C-CERAMIC,CHIP;120pF,5%,50V,NPO,TP,1608,
DC35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC36	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
DC37	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC38	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC39	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC4	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
DC40	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
DC41	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC42	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC43	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC44	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
DC45	2203-000626	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,1608,-
DC46	2203-000626	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,1608,-
DC47	2203-000815	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,-
DC48	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC49	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC50	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
DC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
DCN1	3708-001086	CONNECTOR-FPC/FC/PIC;28P,1.25mm,STRAIGHT
DD1	0405-000106	DIODE-VARACTOR;1SV228,15V,10NA,SOT-23,TP
DIC1	AH13-10030F	IC-ASIC;-,TC90A19F,QFP,100,DATA PROC.I
DIC2	1105-001038	IC-DRAM;48C512,512Kx8BIT,SOJ,28P,400MI
DIC3	0801-002166	IC-CMOS LOGIC;7SHU04,INVERTER,SSOP,5P,63
DIC6	1201-000211	IC-OP AMP;272A,SOP,8P,150MIL,DUAL,7.5V/m
DIC7	0501-000199	TR-SMALL SIGNAL;2SC2714-Y,NPN,100MW,SOT-
DIC8	0801-002115	IC-CMOS LOGIC;7SH04F,INVERTER,SOP,5P,49.
DIC9	AH14-10004R	IC;M74HCU04,SOP,TAPE 14P
DL1	2703-000401	INDUCTOR-SMD;1uH,10%,3.2x2.5x2.2mm
DL2	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL3	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL5	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL6	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL7	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
DL8	2007-000729	R-CHIP;300ohm,5%,1/16W,DA,TP,1608
DL9	2901-001040	FILTER-EMI SMD;COMP PLUS P-MISC AU,SECUR
DR1	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
DR10	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608
DR11	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
DR12	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
DR13	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
DR14	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
DR15	2007-000067	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
DR16	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
DR17	2007-007445	R-CHIP;9.1Kohm,5%,1/16W,DA,TP,1608
DR18	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
DR19	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
DR2	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608
DR20	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608
DR21	2007-000127	R-CHIP;9.1Kohm,5%,1/16W,DA,TP,1608
DR22	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
DR26	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
DR27	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR28	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
DR29	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
DR3	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
DR30	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
DR31	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR32	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
DR33	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
DR36	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR37	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR38	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR4	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
DR40	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR45	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR46	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
DR47	2007-000402	R-CHIP;150ohm,5%,1/16W,DA,TP,1608
DR48	2007-000120	R-CHIP;680ohm,5%,1/16W,DA,TP,1608
DR49	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
DR5	2007-000729	R-CHIP;300ohm,5%,1/16W,DA,TP,1608
DR6	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
DR7	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
DR8	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
DR9	2007-000129	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608
DY1	2801-003255	CRYSTAL-UNIT;33MHZ,20PPM,28-AAA,16PF,30O
DY2	2801-003348	CRYSTAL-UNIT;27MHZ,20PPM,28-AAM,20PF,20O
EL2	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
EL3	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
EL4	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
KCN1	3711-003112	CONNECTOR-HEADER;BOX,8P,1R,2.5mm,STRAIGH
LC1	2203-001554	C-CERAMIC,CHIP;1.8nF,10%,50V,X7R,TP,1608
LC11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC2	2203-001052	C-CERAMIC,CHIP;560pF,10%,50V,X7R,TP,1608
LC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
LIC1	0801-002088	IC-CMOS LOGIC;7S86,X-OR GATE,SOT-25,5P,6
LIC2	0801-002088	IC-CMOS LOGIC;7S86,X-OR GATE,SOT-25,5P,6
LIC3	1202-000143	IC-VOLTAGE COMP.;75S393,SOP,5P,-,SINGLE,
LIC3A	1202-000143	IC-VOLTAGE COMP.;75S393,SOP,5P,-,SINGLE,
LIC4	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
LIC6	0801-002145	IC-CMOS LOGIC;7W74,D FLIP-FLOP,SOP,8P,12
LIC7	0801-002143	IC-CMOS LOGIC;7S32,OR GATE,SOT-25,5P,63M
LIC8	0801-002144	IC-CMOS LOGIC;7W04,INVERTER,SOP,8P,122MI
LR1	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
LR10	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
LR11	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
LR12	2007-000098	R-CHIP;56Kohm,5%,1/16W,DA,TP,1608
LR14	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
LR16	2007-000965	R-CHIP;5.1Kohm,5%,1/16W,DA,TP,1608
LR17	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
LR2	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608
LR3	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608
LR4	2007-000098	R-CHIP;56Kohm,5%,1/16W,DA,TP,1608
LR5	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
LR6	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
LR7	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
LR8	2007-000259	R-CHIP;1.6Kohm,5%,1/16W,DA,TP,1608

Loc. no.	Part No.	Description & Specification
LR9	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
MC1	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
MC10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC13	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC14	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
MC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC16	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC17	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC2	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
MC20	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC21	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
MC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC4	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
MIC1	0903-001144	IC-MICROCONTROLLER;93CM41,8BIT,QFP,100P,
MIC2	1102-001088	IC-EPROM;27C040,512Kx8BIT,DIP,32P,600MI
MIC2A	3704-000472	SOCKET-IC;32P,DIP,SN,2.54mm
MIC3	1106-001259	IC-SRAM;621024,128KX8BIT,SOP,32P,525MIL,
MIC4	0801-002207	IC-CMOS LOGIC;74AC573,LATCH,SOP,20P,300M
MIC5	1103-001048	IC-EEPROM;24C02,256x8BIT,SOP,8P,150MIL,1
MIC6	0801-001054	IC-CMOS LOGIC;74VHC00,NAND GATE,SOP,14P,
MIC7	0801-000411	IC-CMOS LOGIC;74HC32,OR GATE,SOP,14P,150
MR1	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR10	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR11	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608
MR12	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR13	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
MR15	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
MR18	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608
MR19	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR2	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR20	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR21	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR22	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR23	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR24	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR25	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR26	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR27	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR28	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR29	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
MR3	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR30	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR32	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR35	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR36	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR38	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR39	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR4	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR40	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR41	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
MR43	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR44	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR46	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR48	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR5	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR54	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
MR55	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
MR56	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
MR57	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
MR58	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR59	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
MR6	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR61	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
MR62	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
MR63	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
MR7	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR8	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MR9	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
MY1	2801-000199	CRYSTAL-UNIT;20MHz,50ppm,28-AAA,16pF,50o
PC1	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
PC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
PC3	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
PC4	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
PC5	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5
PC6	2401-001969	C-AL;470uF,20%,25V,GP,TP,10x12.5,5
PCN1	3711-000736	CONNECTOR-HEADER;BOX,18P,1R,2.5mm,STRAIG
PD1	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,
PD2	0403-001079	DIODE-ZENER;UDZ3.9B,3.9V,7%,200mW,SOD323
PQ1	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
PQ2	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
PQ3	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
PR1	2007-000245	R-CHIP;1.5KOHM,5%,1/8W,DA,TP,3216
PR2	2007-000293	R-CHIP;100OHM,5%,1/8W,DA,TP,3216
Q1	0501-002082	TR-SMALL SIGNAL;HN1C01F,NPN,300MV,SC-74,
Q2	0504-000126	TR-DIGITAL;KSR1101,NPN,200mW,4.7K-4.7K,S
RC1	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC11	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
RC12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC12A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC13	2203-001697	C-CERAMIC,CHIP;.082NF,5%,50V,NPO,TP,1608
RC13A	2401-002062	C-AL;3.3UF,20%,50V,GP,TP,5X11,2.5
RC14	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC16	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC17	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC18	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC19	2203-000315	C-CERAMIC,CHIP;120pF,5%,50V,NPO,TP,1608,
RC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC20	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC21A	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
RC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC22A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC24	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC24A	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
RC25	2203-000405	C-CERAMIC,CHIP;180pF,5%,50V,NPO,TP,1608,
RC26	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
RC27	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
RC28	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
RC29	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
RC2A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC3	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11mm,2.5m
RC30A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC30C	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC31	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC32	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC33	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC34	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC36	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC37	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
RC38	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
RC39	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-

Loc. no.	Part No.	Description & Specification
RC4	2203-002398	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,1608,
RC40	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
RC41	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC50	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC50A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC51	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC6	2203-002398	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,1608,
RC7	2401-002036	C-AL;1uF,20%,50V,GP,TP,5x11,2.5mm
RC8	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
RC8A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RC9A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
RCA3	3722-001317	JACK-RCA;2P(4P),3.2mm,NI,BLK,NO
RIC1	AH13-10030H	IC-ASIC;-,TA1236F,QFP,64P,RF IC
RIC2	AH13-10030J	IC-ASIC;-,TA1253FN,SSOP,24P,DPD IC
RIC3	1201-001054	IC-OP AMP;650,SOP,8P,-,SINGLE,-,PLASTIC,
RL1	2703-000398	INDUCTOR-SMD;10UH,10%,3.2X2.5X2.2MM
RL10	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
RL10A	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
RQ1	0501-002034	TR-SMALL SIGNAL;SS9012,PNP,-40V,-20V,-50
RR10	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
RR11	2007-001026	R-CHIP;560Kohm,5%,1/16W,DA,TP,1608
RR12A	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR13A	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
RR14	2007-000122	R-CHIP;1.2Kohm,5%,1/16W,DA,TP,1608
RR18	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
RR18A	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
RR18B	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR19	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR20	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR21	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608
RR22	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR23	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR24	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR25	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
RR26	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608
RR26A	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR28	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR28A	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
RR29	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR3	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR30	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR31	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR31A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR33	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR34	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608
RR35	2007-000130	R-CHIP;39Kohm,5%,1/16W,DA,TP,1608
RR36	2007-000616	R-CHIP;24Kohm,5%,1/16W,DA,TP,1608
RR36A	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR37	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608
RR38	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608
RR38A	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608
RR38B	2007-000129	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608
RR38C	2007-001010	R-CHIP;51Kohm,5%,1/16W,DA,TP,1608
RR40	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608
RR40A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
RR41A	2007-000101	R-CHIP;82Kohm,5%,1/16W,DA,TP,1608
RR43	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
RR45	2007-000704	R-CHIP;3.6Kohm,5%,1/16W,DA,TP,1608
RR46	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR5	2007-000119	R-CHIP;560ohm,5%,1/16W,DA,TP,1608
RR50	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
RR51	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
RR53	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR54	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
RR6	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
RR7	2007-000361	R-CHIP;12ohm,5%,1/10W,DA,TP,2012
SC1	2203-001052	C-CERAMIC,CHIP;560pF,10%,50V,X7R,TP,1608
SC10	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC11	2203-001656	C-CERAMIC,CHIP;470pF,5%,50V,CH,TP,1608,1
SC15	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC19	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC2	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC20	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-
SC21	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC22	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC23	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC24	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC25	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC25A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC26	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
SC26A	2203-000888	C-CERAMIC,CHIP;4.7nF,10%,50V,X7R,TP,1608
SC27	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC28	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC28A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC29	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC31	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC32	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC33	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC34	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC35	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC36	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC37	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC39	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC4	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC40	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC41	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC42	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC43	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
SC43A	2203-002398	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,1608,
SC44	2203-000426	C-CERAMIC,CHIP;18pF,5%,50V,NPO,1608,-,TP
SC45	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC46	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC47	2203-000372	C-CERAMIC,CHIP;15nF,10%,50V,X7R,TP,1608,
SC48	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC49	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC5	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC50	2203-000726	C-CERAMIC,CHIP;3.9nF,10%,50V,X7R,TP,1608
SC50A	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,
SC51	2203-000726	C-CERAMIC,CHIP;3.9nF,10%,50V,X7R,TP,1608
SC52	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC53	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC54	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC55	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC55A	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC56	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC58	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC59	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC5A	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC5B	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC6	2203-001052	C-CERAMIC,CHIP;560pF,10%,50V,X7R,TP,1608
SC60	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC62	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC63	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC63A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC65	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,
SC67	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC69	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC7	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC70	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC71	2203-000236	C-CERAMIC,CHIP;100pF,5%,50V,NPO,TP,1608,

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SC72	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
SC73	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SC8	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,
SC9	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
SIC1	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
SIC4	1003-001083	IC-MOTOR DRIVER;BA5924FP,SOP,28P,767MIL,
SIC4A	AH62-30125A	HEAT SINK-IC;-,CU,-,T0.3,-,YEL,-,DVD-905
SIC5	1003-001044	IC-MOTOR DRIVER;BA6840BFP,SOP,28P,292MIL
SIC6	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
SIC7	AH13-10030G	IC-ASIC;-,TC9420F,QFP,100P,DIGITAL SER
SIC8	1201-000163	IC-OP AMP;4560,SOP,8P,150MIL,DUAL,100V/M
SQ1	0505-000191	FET-SILICON;2SK184Y,N,-,-,-,200MW,TO-92
SQ11	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ12	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ13	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ14	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ15	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ16	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ2	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ2A	0504-000128	TR-DIGITAL;-,NPN,200MW,22K-22KOHM,SOT-23
SQ3	0504-000156	TR-DIGITAL;KSR2103,PNP,200mW,22K-22K,SOT
SR1	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
SR10	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
SR100	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR101	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR102	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR103	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR11	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR12	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608
SR13	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
SR13A	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
SR13B	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR13C	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR13D	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR14	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608
SR15	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608
SR16	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR17	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR18	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR19	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR2	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
SR20	2007-000106	R-CHIP;220Kohm,5%,1/16W,DA,TP,1608
SR21	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
SR22	2007-000107	R-CHIP;470Kohm,5%,1/16W,DA,TP,1608
SR23	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
SR24	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
SR24A	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
SR25	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
SR25A	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
SR26	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR27	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR27A	2007-000133	R-CHIP;330Kohm,5%,1/16W,DA,TP,1608
SR28A	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR28B	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR28C	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR29	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR29A	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR3	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
SR30	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR30A	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
SR30B	2007-000127	R-CHIP;9.1Kohm,5%,1/16W,DA,TP,1608
SR31	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608
SR32	2007-000101	R-CHIP;82Kohm,5%,1/16W,DA,TP,1608
SR33	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608
SR34	2007-000450	R-CHIP;180ohm,5%,1/16W,DA,TP,1608
SR34A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR34B	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR35	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
SR36	2007-000450	R-CHIP;180ohm,5%,1/16W,DA,TP,1608
SR36A	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR36B	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR37	2007-007157	R-CHIP;1ohm,5%,1/4W,DA,TP,3216
SR37A	2007-007157	R-CHIP;1ohm,5%,1/4W,DA,TP,3216
SR38	2007-000458	R-CHIP;18Kohm,5%,1/16W,DA,TP,1608
SR39	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR4	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608
SR40	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608
SR41	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608
SR42	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608
SR43	2007-000458	R-CHIP;18Kohm,5%,1/16W,DA,TP,1608
SR44	2007-000099	R-CHIP;62Kohm,5%,1/16W,DA,TP,1608
SR44A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR45	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR49	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR5	2007-000129	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608
SR50	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR51	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
SR52	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR53	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR54	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR55	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR56	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR56A	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR57	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR58	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR59	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR6	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608
SR60	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
SR61A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR61B	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR63	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR63A	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR68	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
SR7	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608
SR70	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608
SR71	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608
SR73	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR74	2007-000065	R-CHIP;2.2Mohm,5%,1/16W,DA,TP,1608
SR77	2007-000133	R-CHIP;330Kohm,5%,1/16W,DA,TP,1608
SR78	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608
SR79	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608
SR8	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608
SR80	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR81	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR82	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR83	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR85	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR9	2007-000129	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608
SR90	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR93	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
SR96	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR97	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
SR98	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
SR99	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012
SX1	2801-003256	CRYSTAL-UNIT;16.9344MHZ,20PPM,28-AAA,18P
VC1	2401-001479	C-AL;470uF,20%,10V,GP,-,-,TP
VC10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC11	2401-001479	C-AL;470uF,20%,10V,GP,-,-,TP
VC18	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC2	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC3	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC4	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,

Loc. no.	Part No.	Description & Specification
VC5	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC6	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC7	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
VC8	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,
VC9	2401-002008	C-AL;100uF,20%,16V,GP,TP,6.3x11,2.5
VF1	2909-001022	FILTER-LC;-,0~+7.5MHZ,4.5DB,TP,1.5~4.5DB
VIC1	1204-001366	IC-VIDEO ENCODER;SAA7128,QFP,44P,-,PLAST
VJ1	3722-001318	JACK-RCA;1P(2P),3.2mm,NI,BLK,NO
VL1	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
VL11	2901-001025	FILTER-EMI SMD;25V,200MA,-,-,3.2X1.6X1.8
VL2	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
VL3	3301-000353	CORE-FERRITE BEAD;AB,2.0x1.25x0.9mm,-,-
VQ1	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ2	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ3	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ4	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150MW,SOT-23,
VQ5	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VQ6	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200MW,SOT-
VR1	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR10	2007-000121	R-CHIP;820ohm,5%,1/16W,DA,TP,1608
VR11	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR12	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR13	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR14	2007-000123	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1608
VR15	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608
VR16	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR17	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR18	2007-000539	R-CHIP;200ohm,5%,1/16W,DA,TP,1608
VR19	2007-001134	R-CHIP;68ohm,5%,1/16W,DA,TP,1608
VR2	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608
VR3	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
VR4	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608
VR5	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608
VR6	2007-000821	R-CHIP;390ohm,1%,1/16W,DA,TP,1608
VR7	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608
VR8	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608
VR9	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608

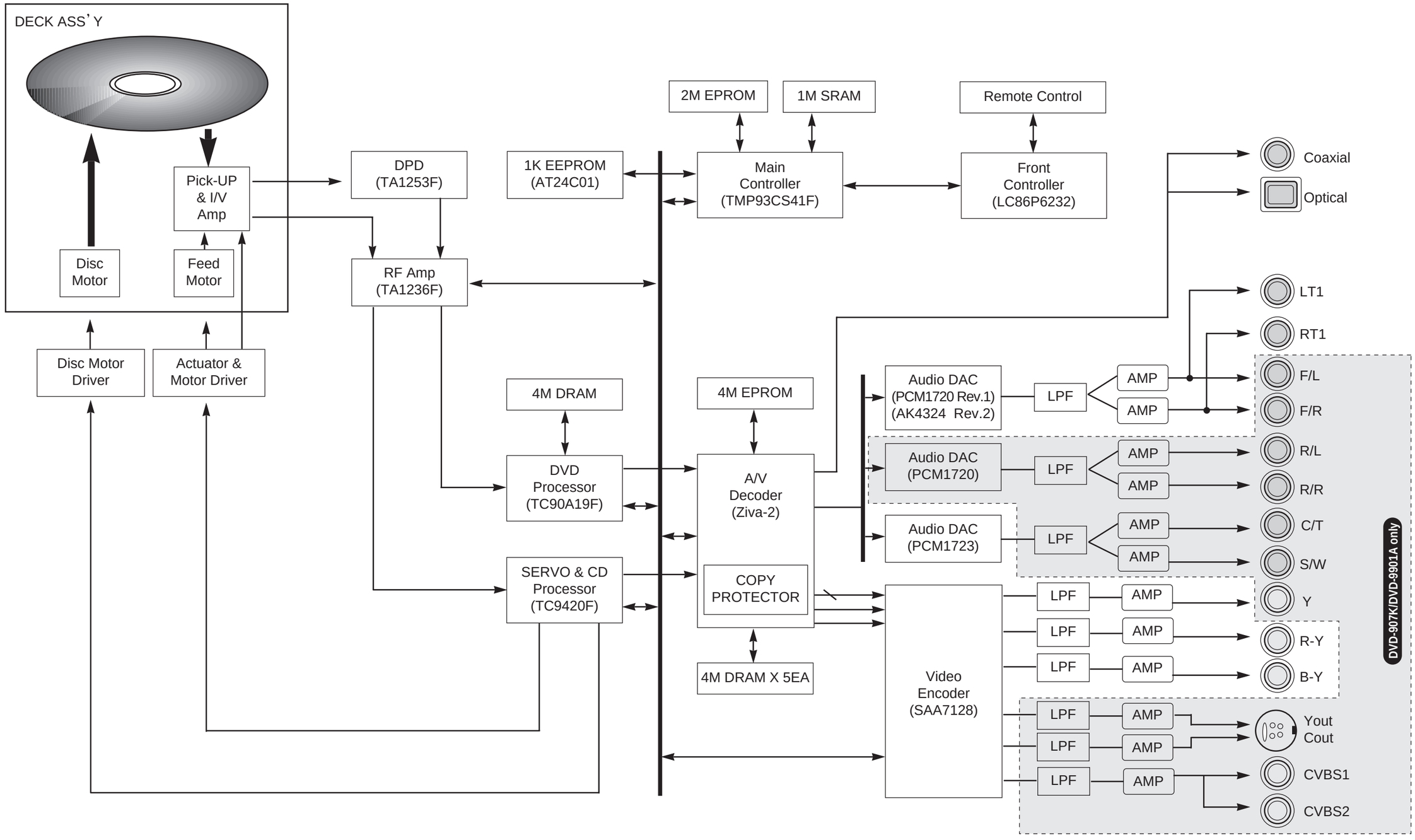
Loc. no.	Part No.	Description & Specification
26	**AH90-10750V**	**Front Board**
FC1	2401-000918	C-AL;22uF,20%,16V,GP,-,6.3x7,5
FC10	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
FC13	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5
FC15	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
FC16	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1
FC2	2202-000162	C-CERAMIC,MLC-AXIAL;.015NF,5%,50V,SL,TP,
FC3	2202-000162	C-CERAMIC,MLC-AXIAL;.015NF,5%,50V,SL,TP,
FC4	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
FC5	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5
FC6	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
FC7	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
FC8	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5
FC9	2401-001573	C-AL;47uF,20%,50V,GP,TP,6.3x11,2.5
F-CABI	3809-001025	CABLE-FLAT;30V,80C,270MM,28P,1.25MM,UL28
FD10	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
FD5S	0601-000218	LED;INVERTER,RED,3mm,650nm
FD6	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
FD7	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
FD8	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
FD9	0403-000551	DIODE-ZENER;MTZ3.9B,3.9V,3.89-4.16V,500m
FIC1	AH09-00004A	IC-MICOM MASKING;LC866232,100PIN,QIP,FLT
FIC2	1203-001252	IC-VOL. DETECTOR;7545,TO-92,3P,-,PLASTIC
FIC3	AH07-20045K	VF-DISPLAY;SVA-11MM08,14SEG,26X107.5MM,D
FIC4	AH59-60001J	MODULE-REMOCON;GP1U271R,38KHZ,-,MESH,-
FJP1	3708-001083	CONNECTOR-FPC/FC/PIC;28P,1.25mm,ANGLE,SN
FL1	2701-000113	INDUCTOR-AXIAL;100uH,5%,2.5x3.4mm
FR16	2001-000027	R-CARBON;100ohm,5%,1/4W,AA,TP,2.4x6.4mm
FR17	2001-000027	R-CARBON;100ohm,5%,1/4W,AA,TP,2.4x6.4mm
FR18	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m
FR19	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m
FR20	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m
FR21	2001-000435	R-CARBON;1Mohm,5%,1/8W,AA,TP,1.8x3.2mm
FR25	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,-
FR27	2001-000591	R-CARBON;3.3KOHM,5%,1/8W,AA,TP,-
FR28	2001-000591	R-CARBON;3.3KOHM,5%,1/8W,AA,TP,-
FR29	2001-000591	R-CARBON;3.3KOHM,5%,1/8W,AA,TP,-
FR30	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
FR31	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
FR32	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
FR33	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
FR43	2001-000793	R-CARBON;47ohm,5%,1/8W,AA,TP,1.8x3.2mm
FR44	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
FR45	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
FR46	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,-
FR47	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
FR5	2001-000515	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm
FR9	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,-
FSW1	3404-001008	SWITCH-TACT;12V,20mA,160+-50,6x7.9x3.5mm
FSW2	3404-001008	SWITCH-TACT;12V,20mA,160+-50,6x7.9x3.5mm
FSW3	3404-001008	SWITCH-TACT;12V,20mA,160+-50,6x7.9x3.5mm
FSW4	3404-001008	SWITCH-TACT;12V,20mA,160+-50,6x7.9x3.5mm
FSW5	3404-001008	SWITCH-TACT;12V,20mA,160+-50,6x7.9x3.5mm
FSW6	3404-001008	SWITCH-TACT;12V,20mA,160+-50,6x7.9x3.5mm
FSW7S	3404-001008	SWITCH-TACT;12V,20mA,160+-50,6x7.9x3.5mm
FSW8	3404-001008	SWITCH-TACT;12V,20mA,160+-50,6x7.9x3.5mm
FY1	2802-000108	RESONATOR-CERAMIC;12MHZ,0.5%,BK,10.0X5.0

Loc. no.	Part No.	Description & Specification
18	**AH90-10747A**	**POWER Board**
PC01	2305-001021	C-FILM,MPEF;100nF,20%,275V,TP,17.5x7x13.
PC02	2305-001021	C-FILM,MPEF;100nF,20%,275V,TP,17.5x7x13.
PC03	2401-003302	C-AL;47uF,20%,400V,GP,TP,18X31.5,7.
PC04	2301-000140	C-FILM,PEF;10nF,10%,630V,BK,16.5X9.5X5.7
PC05	2201-000129	C-CERAMIC,DISC;100pF,10%,1KV,Y5P,TP,6x5,
PC06	2401-000970	C-AL;22uF,20%,50V,WT,TP,5x11,5
PC07	2301-000129	C-FILM,PEF;100nF,5%,50V,10X9X4.3X5,5mm,T
PC08	2401-001919	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5
PC09	2301-000129	C-FILM,PEF;100nF,5%,50V,10X9X4.3X5,5mm,T
PC10	2201-000916	C-CERAMIC,DISC;100pF,10%,400V,Y5U,TP,10x
PC11	2201-000916	C-CERAMIC,DISC;100pF,10%,400V,Y5U,TP,10x
PC12	2201-000812	C-CERAMIC,DISC;2.2nF,20%,400V,Y5U,BK,11x
PC13	2201-000812	C-CERAMIC,DISC;2.2nF,20%,400V,Y5U,BK,11x
PC31	2401-002190	C-AL;330uF,20%,25V,GP,BK,10x12.5mm,
PC32	2401-002162	C-AL;1000uF,20%,25V,WT,TP,10x20,5mm
PC33	2401-002162	C-AL;1000uF,20%,25V,WT,TP,10x20,5mm
PC34	2401-003323	C-AL;470uF,20%,16V,WT,TP,10x9,5
PC35	2401-003323	C-AL;470uF,20%,16V,WT,TP,10x9,5
PC36	2401-001902	C-AL;100UF,20%,50V,GP,-,6.3X11,2.5
PC37	2401-002190	C-AL;330uF,20%,25V,GP,BK,10x12.5mm,
PC38	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
PC39	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
PC40	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
PC41	2401-002036	C-AL;1uF,20%,50V,GP,TP,5x11,2.5mm
PC42	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
PC43	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
PC44	2301-000129	C-FILM,PEF;100nF,5%,50V,10X9X4.3X5,5mm,T
PCN01	3711-000190	CONNECTOR-HEADER;1WALL,2P,1R,7.92mm,STRA
PCN02	AH39-20559E	LEAD CONNECTOR-ASSY;-,5264-18,51088-18,1
PD01	0402-001009	DIODE-RECTIFIER;1SR139,600V,1A,MSR,TP
PD02	0402-001009	DIODE-RECTIFIER;1SR139,600V,1A,MSR,TP
PD03	0402-001009	DIODE-RECTIFIER;1SR139,600V,1A,MSR,TP
PD04	0402-001009	DIODE-RECTIFIER;1SR139,600V,1A,MSR,TP
PD11	0402-000378	DIODE-RECTIFIER;EG01C,1000V,500mA,DO-41
PD12	0402-001013	DIODE-RECTIFIER;1SR153-400,400V,800mA,DO
PD31	0402-001013	DIODE-RECTIFIER;1SR153-400,400V,800mA,DO
PD32	0402-001069	DIODE-RECTIFIER;RL10Z,200V,2A,DO,TP
PD33	0402-000430	DIODE-RECTIFIER;FML-G02S,200V,3.0A,TO-22
PD34	0402-001069	DIODE-RECTIFIER;RL10Z,200V,2A,DO,TP
PD35	0402-001013	DIODE-RECTIFIER;1SR153-400,400V,800mA,DO
PD36	0402-001013	DIODE-RECTIFIER;1SR153-400,400V,800mA,DO
PD37	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP
PD38	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
PF01	3601-000170	FUSE-FERRULE;250V,1.6A,TL,GLASS,5x20mm
PIC1	1203-001049	IC-PWM CONTROLLER:1L0380,TO-220F,4P,10MI
PIC2	0604-000001	PHOTO-COUPLER;TR,50-60%,200mW,DIP-4,ST
PIC3	AC14-12006D	IC;KA431Z,TO-92,TAPING
PIC4	1203-000122	IC-NEGA.FIXED REG.;7908,TO-220,3P,-,PLAS
PIC5	1203-000294	IC-POSI.FIXED REG.;7808,TO-220,3P,-,PLAS
PIC6	1203-001083	IC-VOLTAGE REGULATOR;3RF23,TO-202,4P,12.
PL01	AC29-30050A	FILTER-LINE NOISE;-,400UH,-,250V,-
PL02	AH29-30010C	FILTER-LINE NOISE;-,0.4mH MIN,-,AC250V,F
PL34	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm
PL37	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm
PQ21	0504-000142	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T
PQ22	0504-000118	TR-DIGITAL;KSR1003,NPN,300mW,22K-22K,TO-
PQ23	0502-000425	TR-POWER;2SD2395-F,NPN,2W,TO-220FN,BK,1
PQ24	0502-000425	TR-POWER;2SD2395-F,NPN,2W,TO-220FN,BK,1
PR10	2006-000262	R-CEMENT;2.7ohm,10%,2W,CB,ST,7.5x11x20.
PR11	2001-000073	R-CARBON;33Kohm,5%,1/4W,AA,TP,2.4x6.4mm
PR12	2001-000073	R-CARBON;33Kohm,5%,1/4W,AA,TP,2.4x6.4mm
PR13	2001-000073	R-CARBON;33Kohm,5%,1/4W,AA,TP,2.4x6.4mm
PR14	2001-000073	R-CARBON;33Kohm,5%,1/4W,AA,TP,2.4x6.4mm
PR15	2003-000273	R-METAL OXIDE;33Kohm,5%,2W,AA,TP,6x16mm
PR16	2003-000273	R-METAL OXIDE;33Kohm,5%,2W,AA,TP,6x16mm
PR17	2003-000455	R-METAL OXIDE(S);100ohm,5%,2W,AA,TP,4x12
PR18	2001-000793	R-CARBON;47ohm,5%,1/8W,AA,TP,1.8x3.2mm
PR31	2001-000034	R-CARBON;220OHM,5%,1/4W,AA,TP,-
PR32	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
PR33	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
PR34	2001-000440	R-CARBON;1ohm,5%,1/8W,AA,TP,1.8x3.2mm
PR35	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,-
PR36	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,-
PR37	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,-
PR38	2004-000869	R-METAL;3Kohm,1%,1/8W,AA,TP,1.8x3.2mm
PR39	2004-000459	R-METAL;2.2Kohm,1%,1/8W,AA,TP,1.8x3.2m
PT1	AC26-20120H	TRANS-SWITCHING;-,85V-240V,UL/CSA,EE2821
PVA01	1405-000186	VARISTOR;470V,4500A,17x12mm,TP
PZD11	0403-000539	DIODE-ZENER;MTZ18C,18V,17.42-18.33V,500m
PZD12	0403-000716	DIODE-ZENER;MTZJ4.7B,4.7V,4.55-4.8V,500m
PZD31	0403-000716	DIODE-ZENER;MTZJ4.7B,4.7V,4.55-4.8V,500m
RL03	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,
34	**AH90-10750Z**	**Karaoke Board**
KC1	2401-001931	C-AL;220NF,20%,50V,-,TP,4X7MM,5
KC10	2401-001333	C-AL;470nF,20%,50V,GP,TP,5x11,5
KC11	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
KC12	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
KC13	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
KC14	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
KC15	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
KC16	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5
KC17	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
KC18	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
KC2	2401-001931	C-AL;220NF,20%,50V,-,TP,4X7MM,5
KC21	2401-000778	C-AL;220uF,20%,10V,GP,-,6.3x11,2.5m
KC22	2201-000236	C-CERAMIC,DISC;150pF,5%,50V,SL,TP,5.0*3.
KC23	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5
KC24	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
KC25	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
KC26	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
KC27	2301-000289	C-FILM,PEF;5.6nF,5%,50V,TP,7x6x3,5
KC28	2401-001919	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5
KC29	2201-000602	C-CERAMIC,DISC;560pF,5%,50V,SL,TP,9.5x3,
KC3	2201-000602	C-CERAMIC,DISC;560pF,5%,50V,SL,TP,9.5x3,
KC30	2301-000445	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm
KC31	2301-000289	C-FILM,PEF;5.6nF,5%,50V,TP,7x6x3,5
KC32	2301-000427	C-FILM,PEF;3.9NF,10%,50V,TP,5.5X7X3MM,5M
KC33	2301-000445	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm
KC34	2201-000602	C-CERAMIC,DISC;560pF,5%,50V,SL,TP,9.5x3,
KC35	2301-000289	C-FILM,PEF;5.6nF,5%,50V,TP,7x6x3,5
KC36	2401-001919	C-AL;2.2UF,20%,50V,-,TP,4X7MM,5
KC37	2401-002036	C-AL;1uF,20%,50V,GP,TP,5x11,2.5mm
KC38	2401-002036	C-AL;1uF,20%,50V,GP,TP,5x11,2.5mm
KC4	2201-000602	C-CERAMIC,DISC;560pF,5%,50V,SL,TP,9.5x3,
KC42	2201-000236	C-CERAMIC,DISC;150pF,5%,50V,SL,TP,5.0*3.
KC43	2301-000129	C-FILM,PEF;100nF,5%,50V,10X9X4.3X5,5mm,T
KC44	2201-000146	C-CERAMIC,DISC;100pF,5%,50V,SL,TP,5x3,5
KC45	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
KC46	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
KC47	2301-000129	C-FILM,PEF;100nF,5%,50V,10X9X4.3X5,5mm,T
KC48	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
KC49	2202-000780	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5
KC5	2401-001225	C-AL;4.7uF,20%,16V,GP,TP,3x5,5
KC6	2401-001225	C-AL;4.7uF,20%,16V,GP,TP,3x5,5
KC7	2201-000146	C-CERAMIC,DISC;100pF,5%,50V,SL,TP,5x3,5
KC8	2201-000146	C-CERAMIC,DISC;100pF,5%,50V,SL,TP,5x3,5

Loc. no.	Part No.	Description & Specification
KC9	2401-001333	C-AL;470nF,20%,50V,GP,TP,5x11,5
KCN1	AH39-20562B	LEAD CONNECTOR-ASSY;-,5264,5264,8P,290mm
KD1	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
KD2	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
KD3	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
KD4	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
KIC1	1201-000191	IC-OP AMP;4558,DIP,8P,300MIL,DUAL,20V/mV
KIC2	1204-001434	IC-ECHO;ES56033,DIP,16,250,PLASTIC,6.5
KIC3	1201-000191	IC-OP AMP;4558,DIP,8P,300MIL,DUAL,20V/mV
KL1	2901-001125	FILTER-EMI ON BOARD;50V,0.5A,-,220pF,7x7
KL2	2901-001125	FILTER-EMI ON BOARD;50V,0.5A,-,220pF,7x7
KL41	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm
KL42	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm
KL43	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm
KMIC1	3722-000363	JACK-PHONE;9P,6.4MM,AU,BLK,-
KMIC2	3722-000363	JACK-PHONE;9P,6.4MM,AU,BLK,-
KQ1	0501-000637	TR-SMALL SIGNAL;2SC1740S,NPN,50V,40V,100
KQ2	0501-000637	TR-SMALL SIGNAL;2SC1740S,NPN,50V,40V,100
KQ3	0504-000142	TR-DIGITAL;KSR2001,PNP,300mW,4.7K-4.7K,T
KQ4	0501-000637	TR-SMALL SIGNAL;2SC1740S,NPN,50V,40V,100
KR1	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,-
KR10	2001-000563	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR11	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-
KR12	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,-
KR13	2001-000010	R-CARBON;68Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR14	2001-000010	R-CARBON;68Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR15	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
KR16	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
KR17	2001-000773	R-CARBON;470Kohm,5%,1/8W,AA,TP,1.8x3.2m
KR18	2001-000773	R-CARBON;470Kohm,5%,1/8W,AA,TP,1.8x3.2m
KR19	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,-
KR2	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,-
KR20	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,-
KR22	2001-000411	R-CARBON;18KOHM,5%,1/8W,AA,TP,-
KR23	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m
KR24	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,-
KR25	2001-000008	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR26	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,-
KR27	2001-000331	R-CARBON;12KOHM,5%,1/8W,AA,TP,-
KR28	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,-
KR29	2001-000008	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR30	2001-000331	R-CARBON;12KOHM,5%,1/8W,AA,TP,-
KR31	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR32	2001-000008	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR33	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-
KR34	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,-
KR35	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m
KR36	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m
KR39	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m
KR40	2001-000522	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR41	2001-000010	R-CARBON;68Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR42	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,-
KR43	2001-000397	R-CARBON;180Kohm,5%,1/8W,AA,TP,1.8x3.2m
KR44	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
KR45	2001-000938	R-CARBON;68ohm,5%,1/8W,AA,TP,1.8x3.2mm
KR46	2001-000515	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm
KR47	2001-000515	R-CARBON;220ohm,5%,1/8W,AA,TP,1.8x3.2mm
KR48	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KR49	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,-
KR5	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
KR6	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,-
KR7	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,-
KR8	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,-
KR9	2001-000563	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm
KVOL1	2101-001010	VR-ROTARY;20Kohm,20%,1/20W,SIDE
KVOL2	2101-001010	VR-ROTARY;20Kohm,20%,1/20W,SIDE

Loc. no.	Part No.	Description & Specification

12. Block Diagram

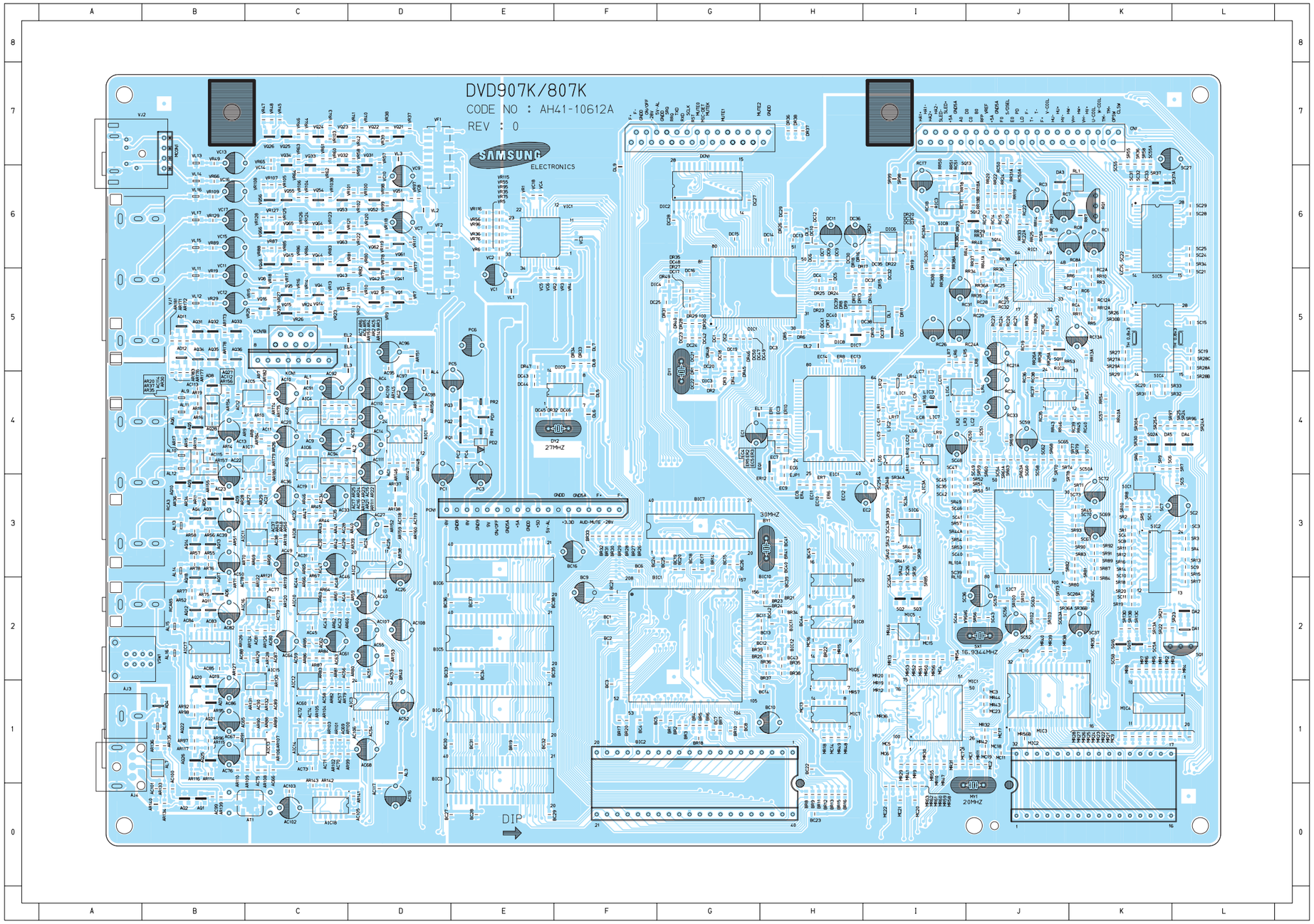


13. PCB Diagrams

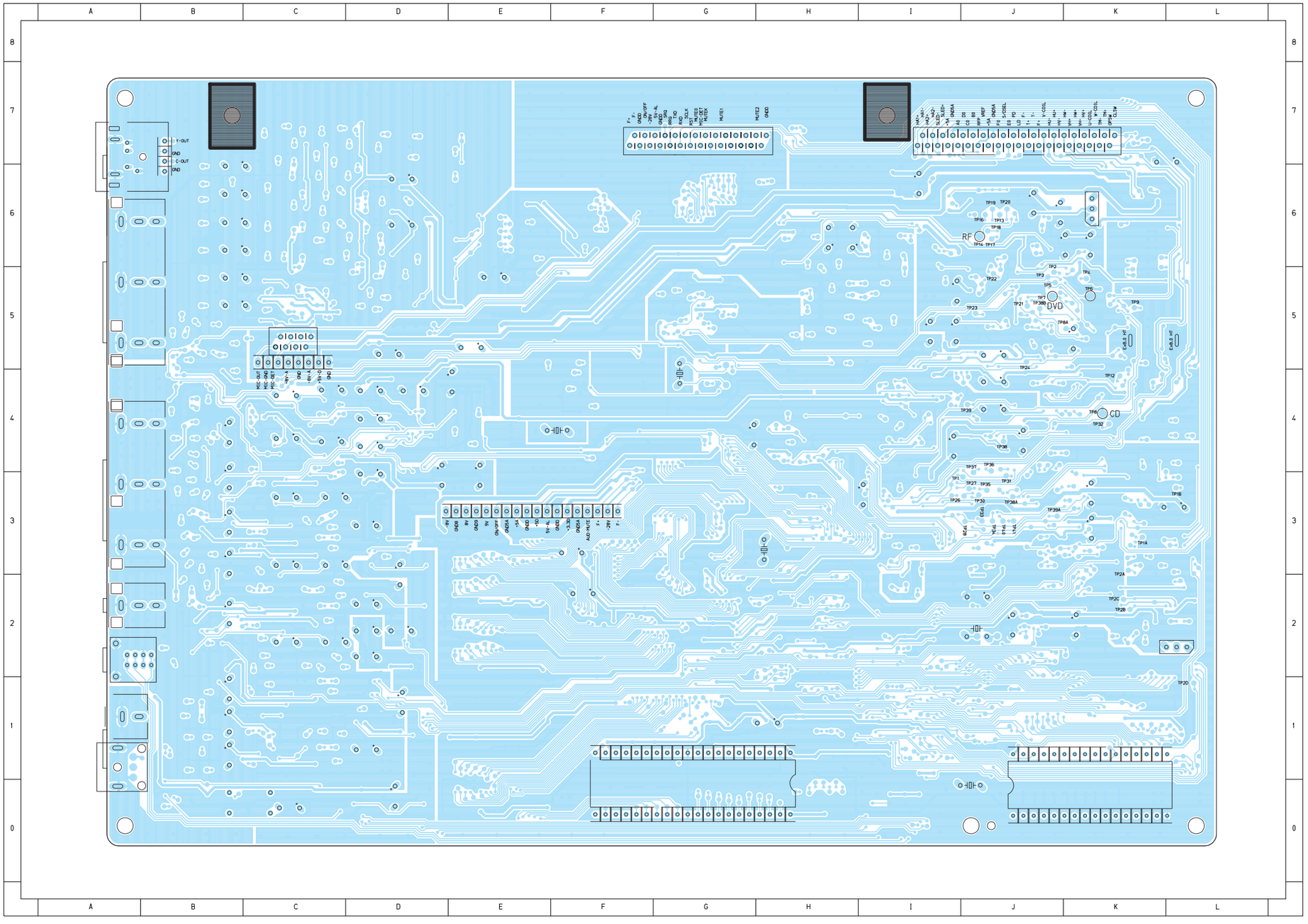
13-1 MAIN BOARD
13-2 FRONT BOARD
13-3 SMPS BOARD
13-4 KARAOKE BOARD
13-5 PICK-DECK

13-1 MAIN BOARD

<COMPONENT SIDE>



<SOLDER SIDE>


A
B
C
D
E
F
G
H
I
J
K
L
8
7
6
5
4
3
2
1
0
Y-OUT
GND
C-OUT
GND
RF
DVD
CD
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP8A
TP8B
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
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TP19
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TP21
TP22
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TP24
TP25
TP26
TP27
TP28
TP29
TP30
TP31
TP32
TP33
TP34
TP35
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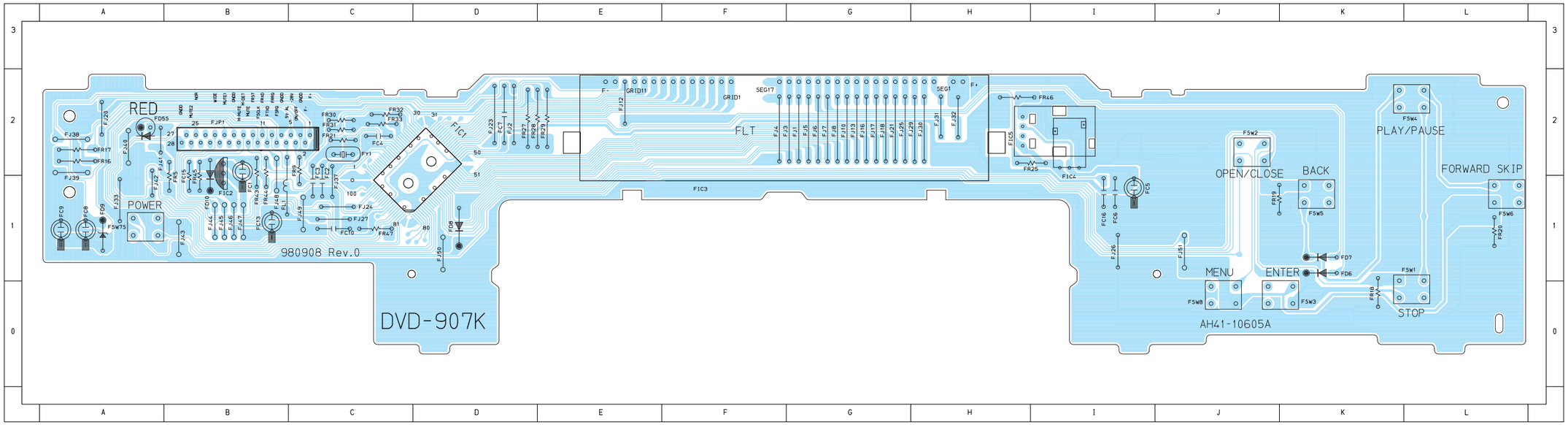
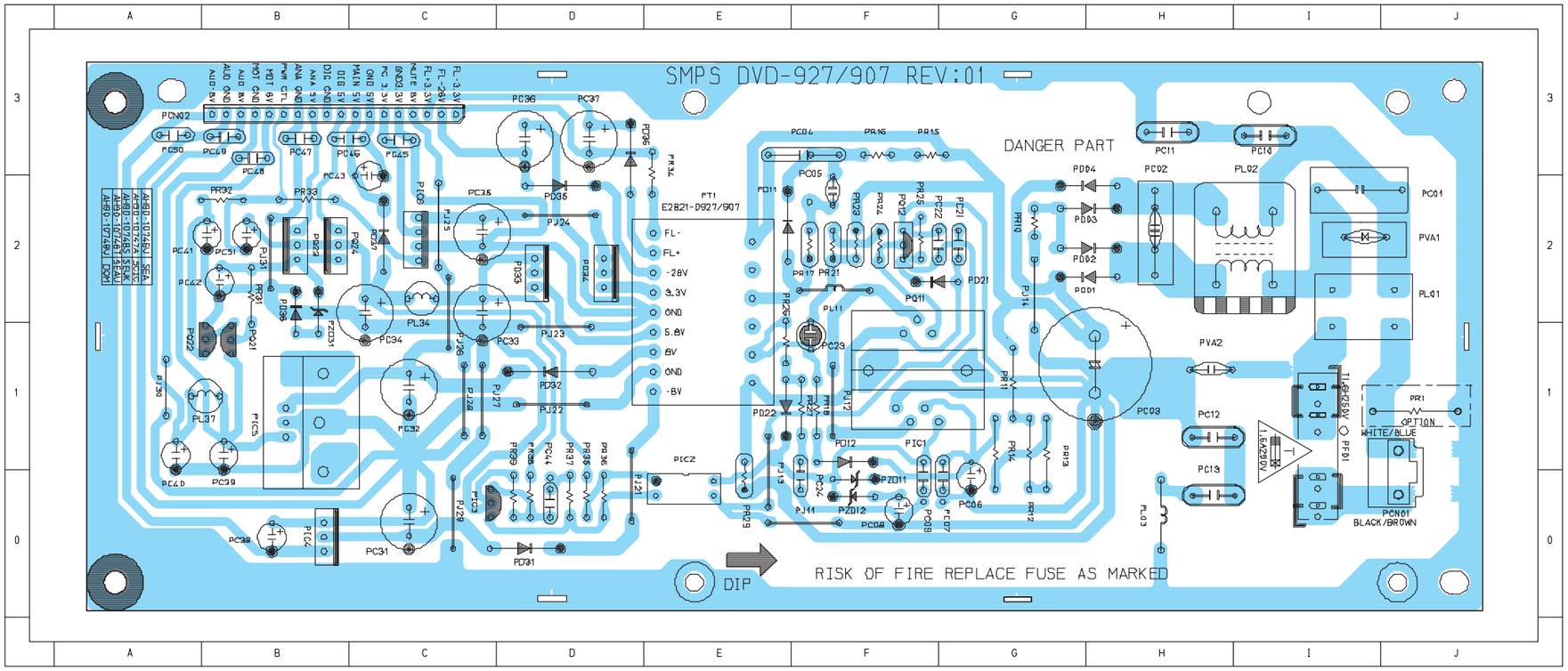
TP38
TP38A
TP39
TP39A
TP1A
TP1B
TP2A
TP2B
TP2C
TP2D


RED
POWER
980908 Rev.0
DVD-907K
FLT
F1C3
F1C4
F1C5
OPEN/CLOSE
BACK
PLAY/PAUSE
FORWARD SKIP
MENU
ENTER
STOP
AH41-10605A


SMPS DVD-927/907 REV:01
DANGER PART
RISK OF FIRE REPLACE FUSE AS MARKED
DIP
PCN02
PCN01
PT1
E2821-D927/907
FL-
FL+
-28V
3.3V
GND
5.8V
8V
GND
-8V
PVA1
PVA2
PL01
PL02
PL03
PC01
PC02
PC03
PC10
PC11
PC12
PC13
PC31
PC32
PC33
PC34
PC35
PC36
PC37
PC38
PC39
PC40
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PC42
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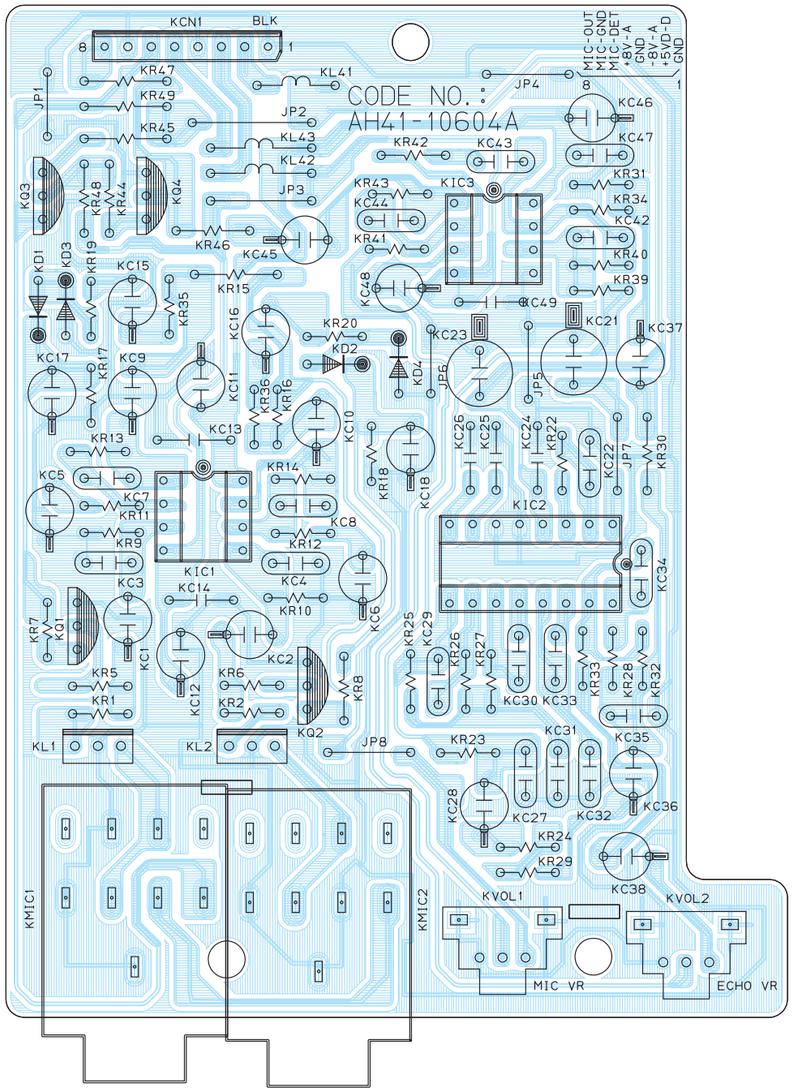
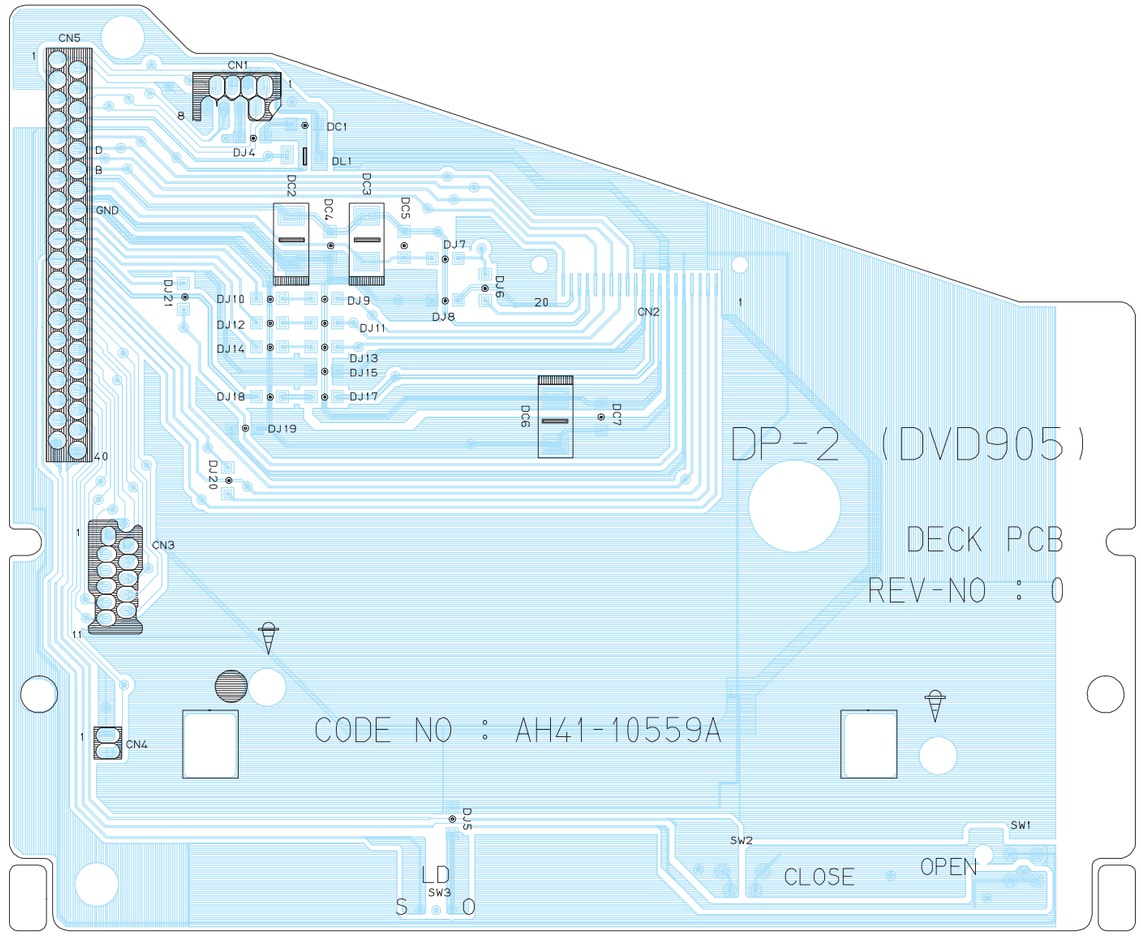
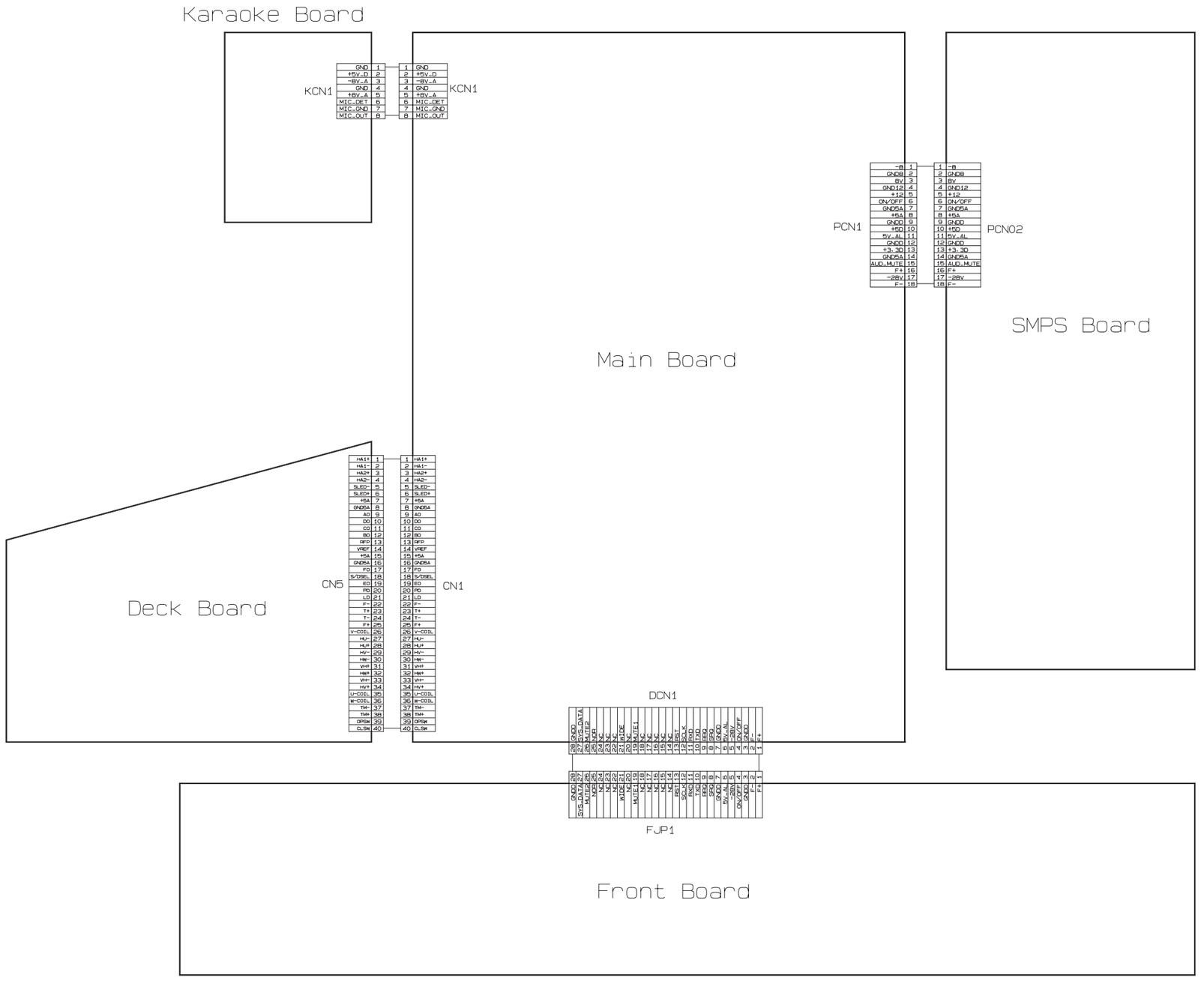
PC67
PC68
PC69
PC70


KCN1
BLK
CODE NO.:
AH41-10604A
MIC-OUT
MIC-GND
MIC-DET
+8V-A
GND
-8V-A
+5VD-D
GND
KIC1
KIC2
KIC3
KMIC1
KMIC2
KVOL1
KVOL2
MIC VR
ECHO VR
KL1
KL2
JP1
JP2
JP3
JP4
JP5
JP7
JP8
KQ1
KQ2
KQ3
KQ4
KD1
KD2
KD3
KD4


DP-2 (DVD905)
DECK PCB
REV-NO : 0
CODE NO : AH41-10559A
CN1
CN2
CN3
CN4
CN5
DC1
DC2
DC3
DC4
DC5
DC6
DC7
DJ4
DJ6
DJ7
DJ8
DJ9
DJ10
DJ11
DJ12
DJ13
DJ14
DJ15
DJ17
DJ18
DJ19
DJ20
DJ21
DL1
SW1
SW2
SW3
LD
CLOSE
OPEN

14. Wiring Diagram



15. Schematic Diagrams

15-1 MAIN

15-1-1 MICOM

15-1-2 SERVO

15-1-3 DATA PROCESSOR

15-1-4 A/V DECODER

15-1-5 AUDIO

15-1-6 VIDEO

15-1-7 CONNECTOR

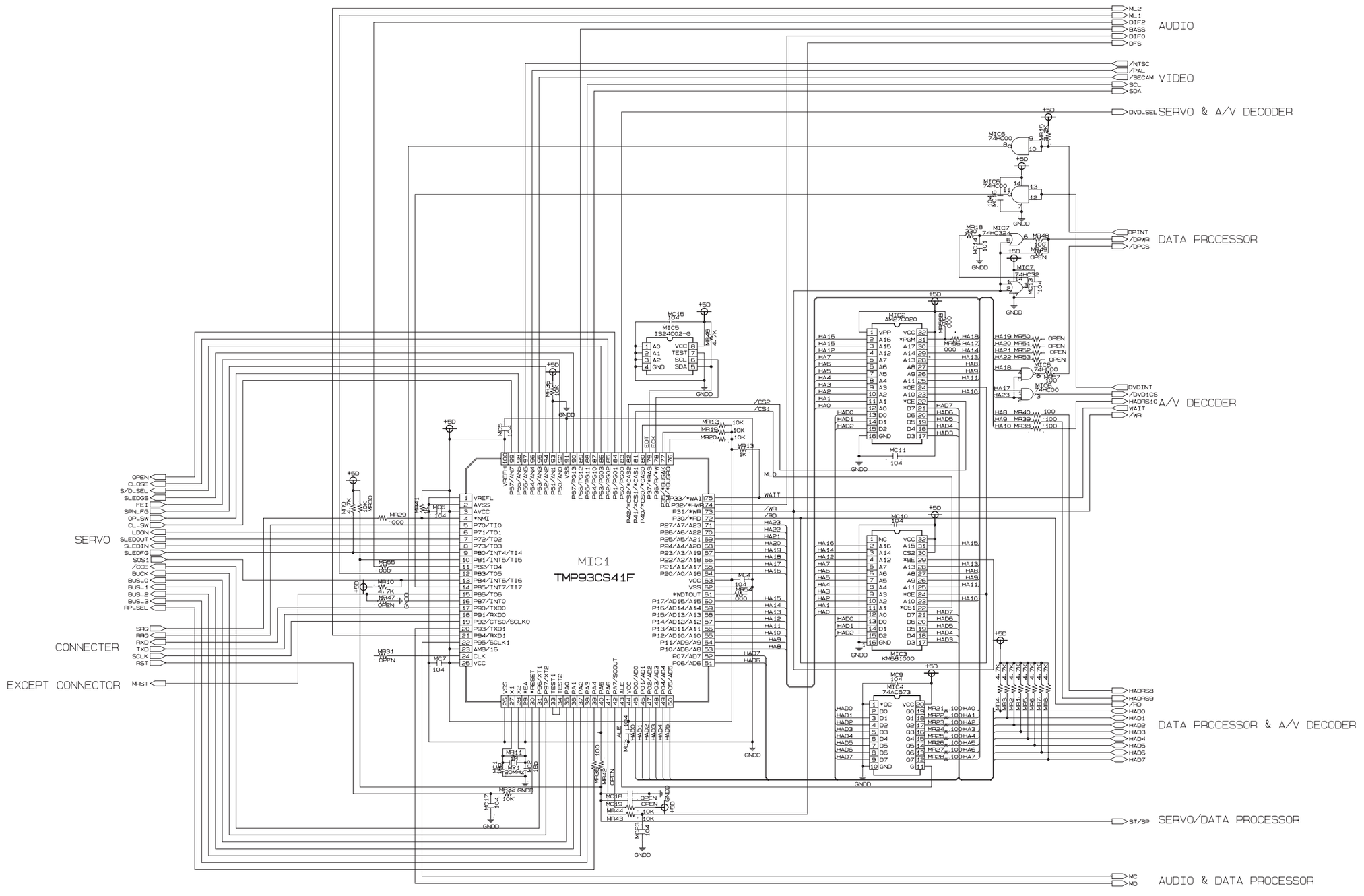
15-2 FRONT

15-3 SMPS

15-4 KARAOKE

15-5 PICK-UP/DECK

15-1-1 MICOM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TMP93CS41F
MIC2
AM27C020
MIC3
KM681000
MIC4
74AC573
MIC5
IS24C02-G
MIC6
74HC00
MIC7
74HC324
MIC8
74HC32
MIC9
74HC00
MIC10
74HC00
MIC11
MIC12
MIC13
MIC14
MIC15
MIC16
MIC17
MIC18
MIC19
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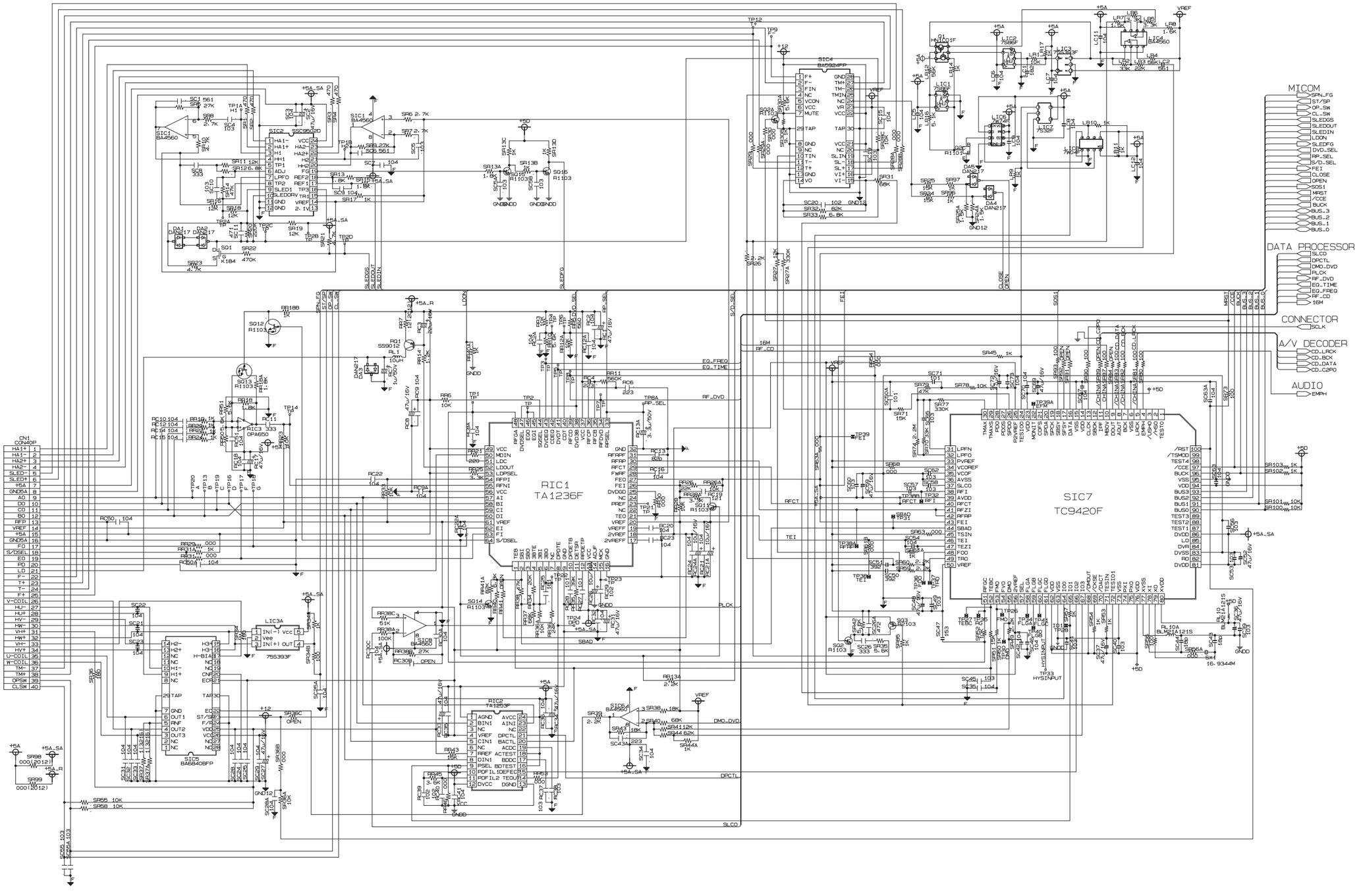
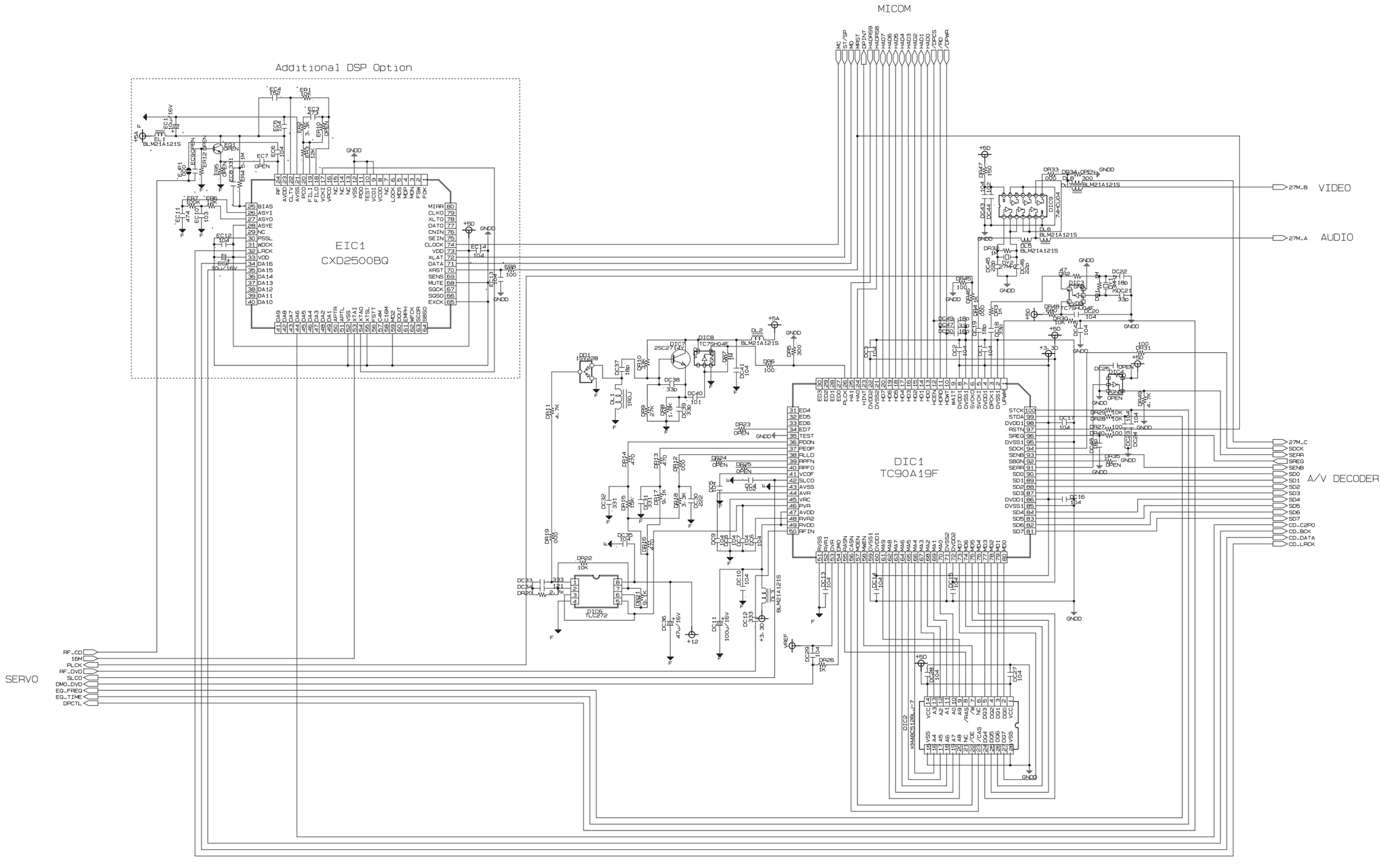
MIC41
MIC42
MIC43
MIC44
MIC45
MIC46
MIC47
MIC48
MIC49
MIC50

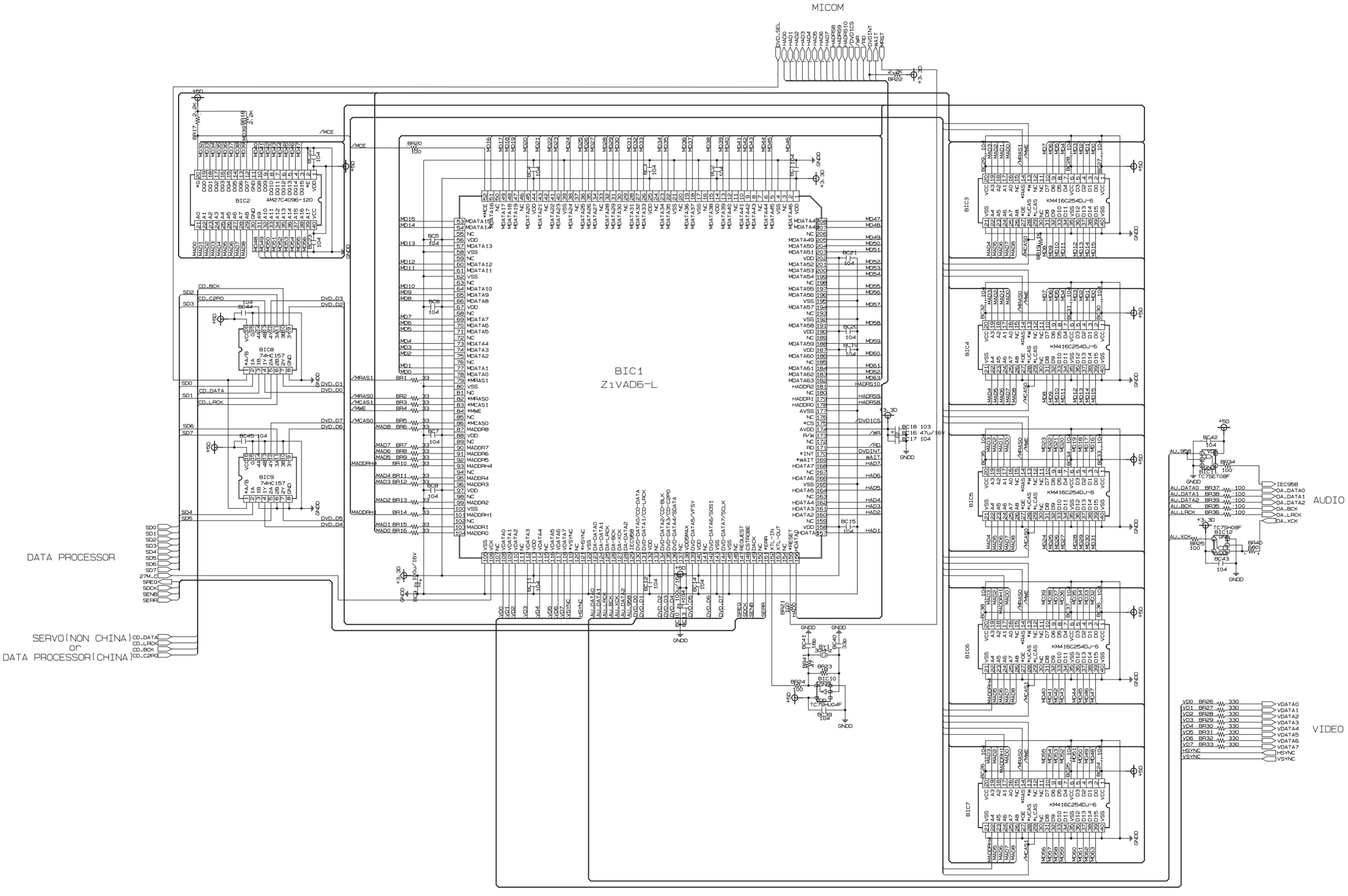
15-1-2 SERVO


RIC1
TA1236F
SIC7
TC9420F
MICOM
DATA PROCESSOR
CONNECTOR
A/V DECODER
AUDIO
CN1
CON40P

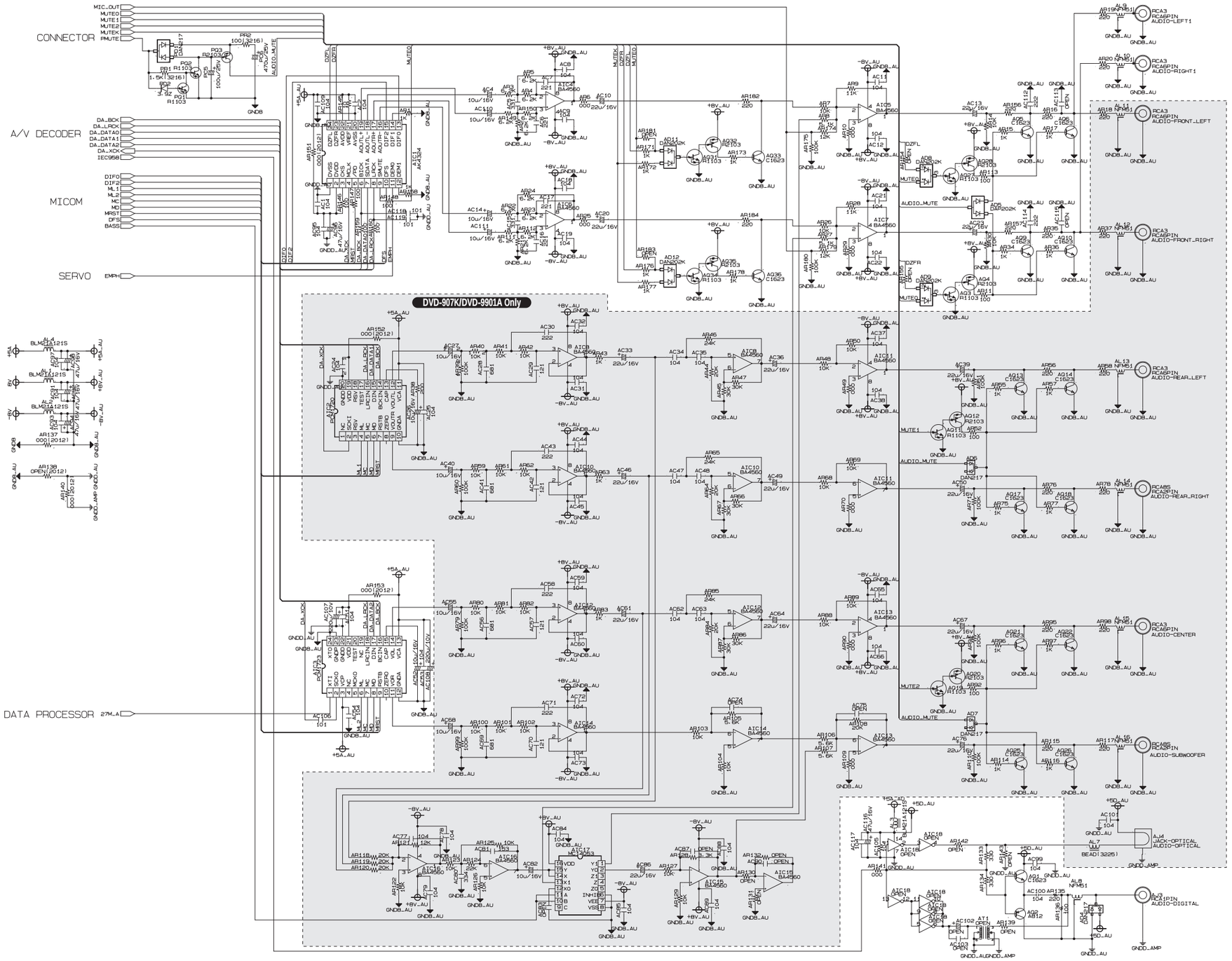
15-1-3 DATA PROCESSOR



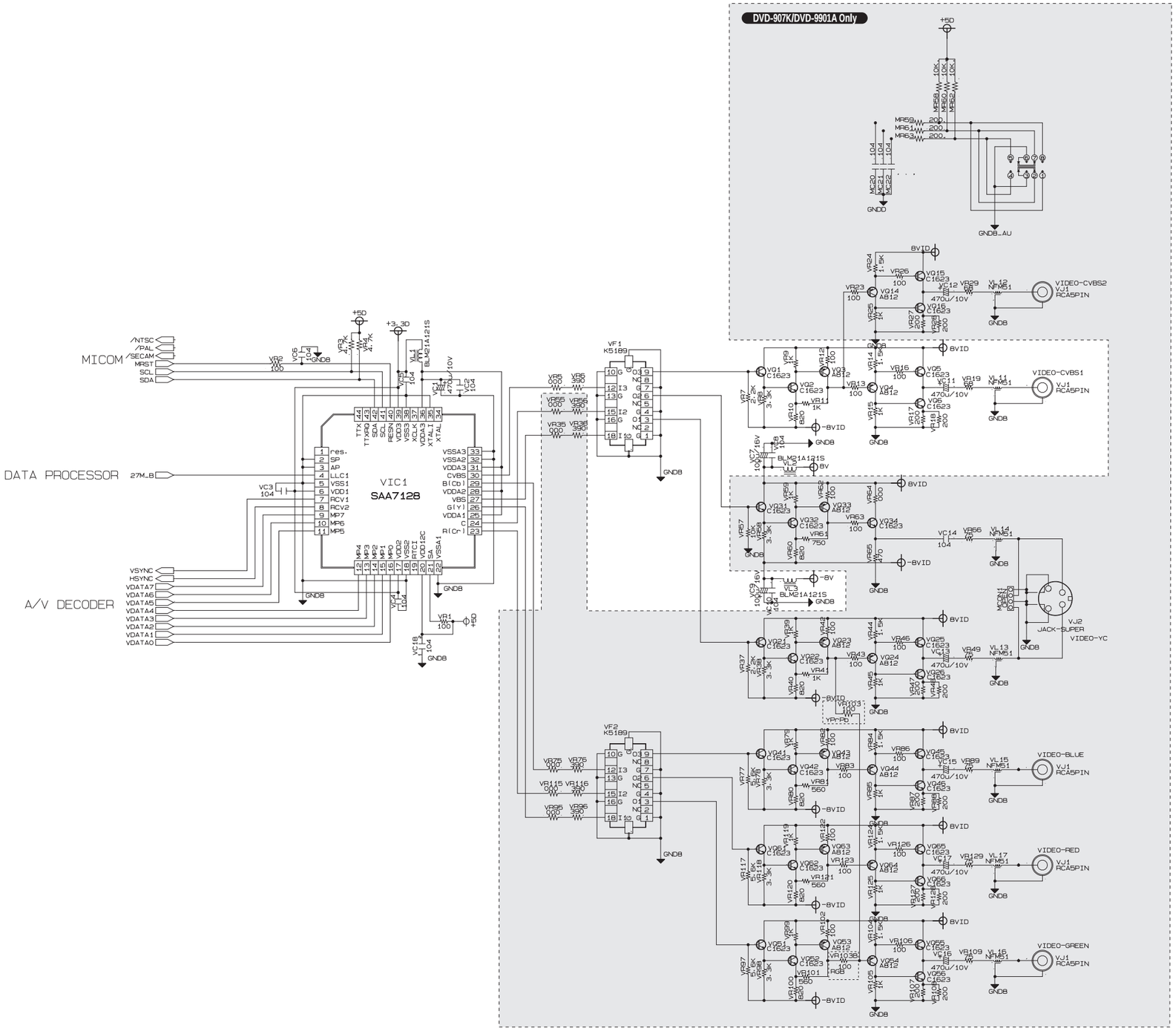
15-1-4 A/V DECODER



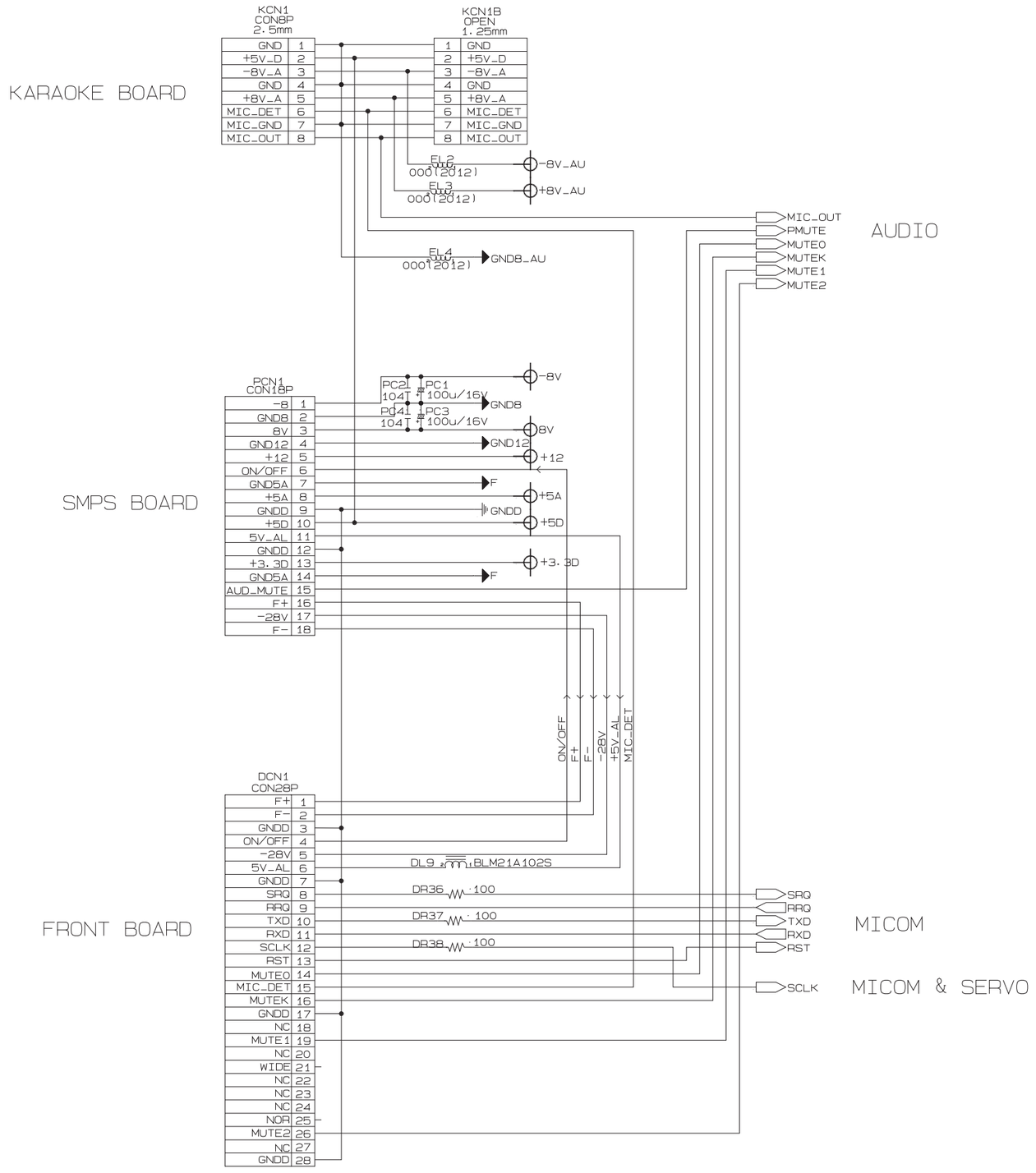
15-1-5 AUDIO

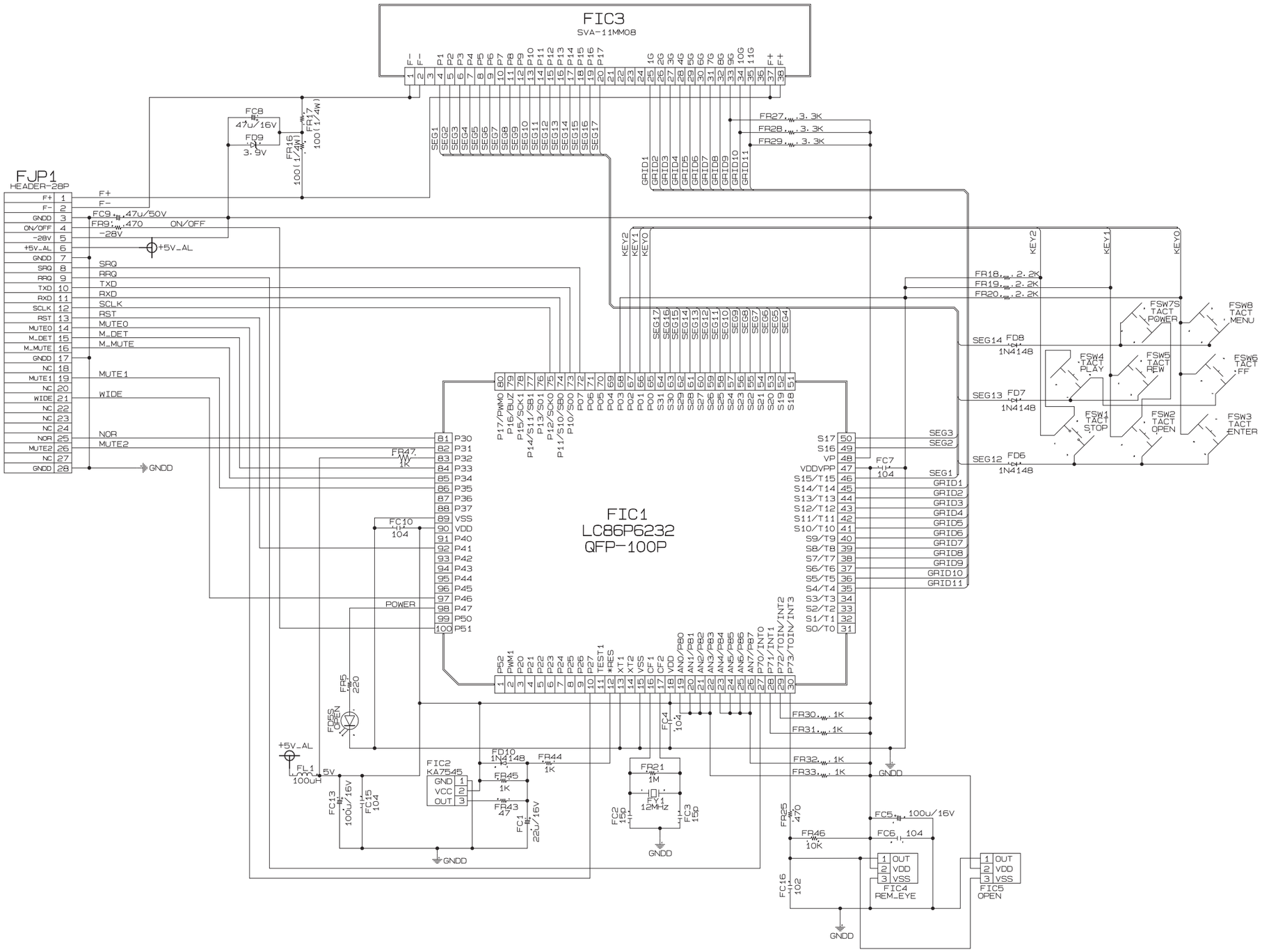

CONNECTOR
A/V DECODER
MICOM
SERVO
DATA PROCESSOR
DVD-907K/DVD-9901A Only
RCA3 RCA6PIN AUDIO-LEFT1
RCA3 RCA6PIN AUDIO-RIGHT1
RCA3 RCA6PIN AUDIO-FRONT_LEFT
RCA3 RCA6PIN AUDIO-FRONT_RIGHT
RCA3 RCA6PIN AUDIO-REAR_LEFT
RCA3 RCA6PIN AUDIO-REAR_RIGHT
RCA3 RCA6PIN AUDIO-CENTER
RCA6S RCA5PIN AUDIO-SUBWOOFER
JACK-OPTICAL AUDIO-OPTICAL
RCA3 RCA2PIN AUDIO-DIGITAL
AUDIO_MUTE
MUTE1
MUTE2

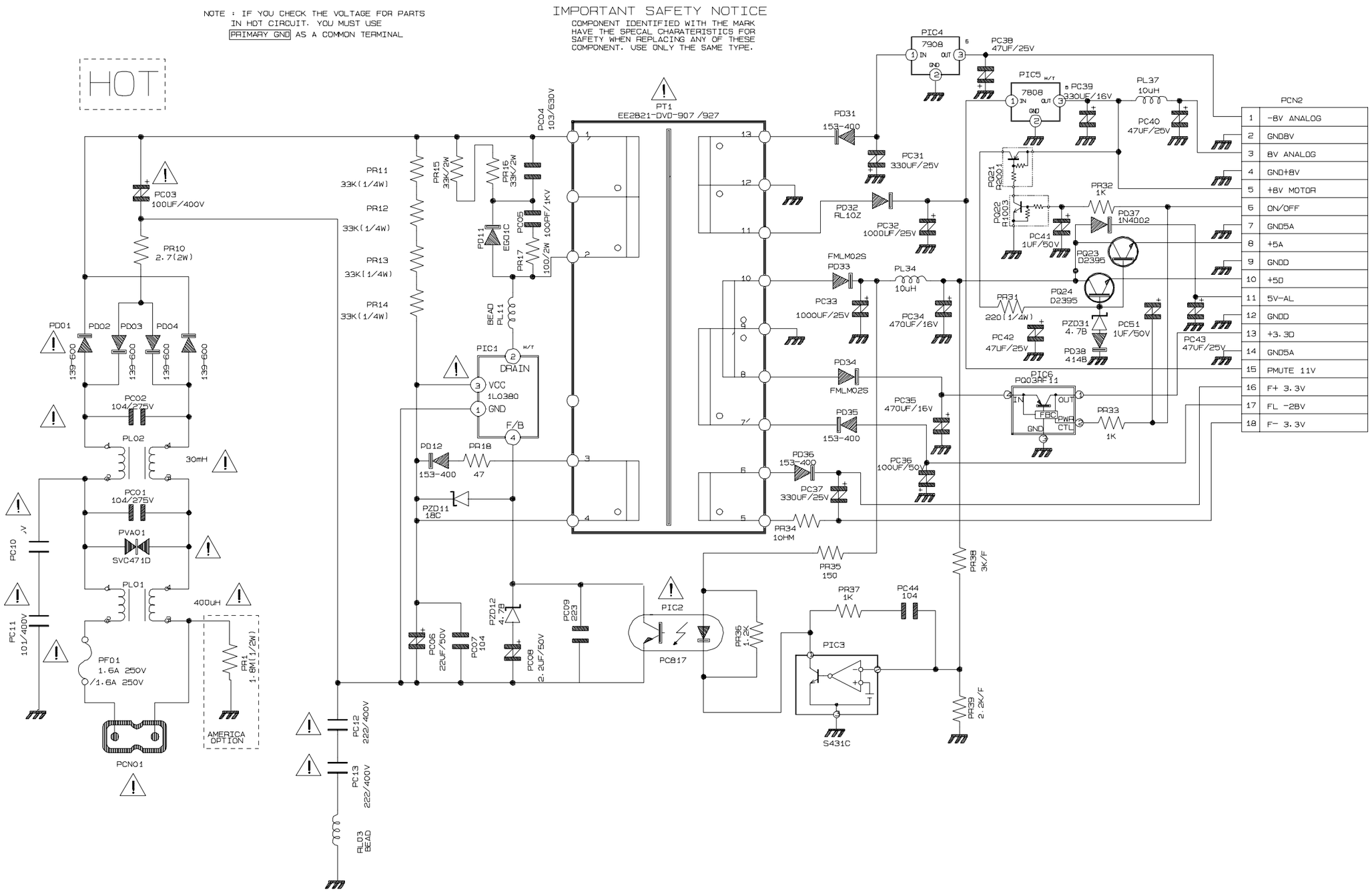
15-1-6 VIDEO

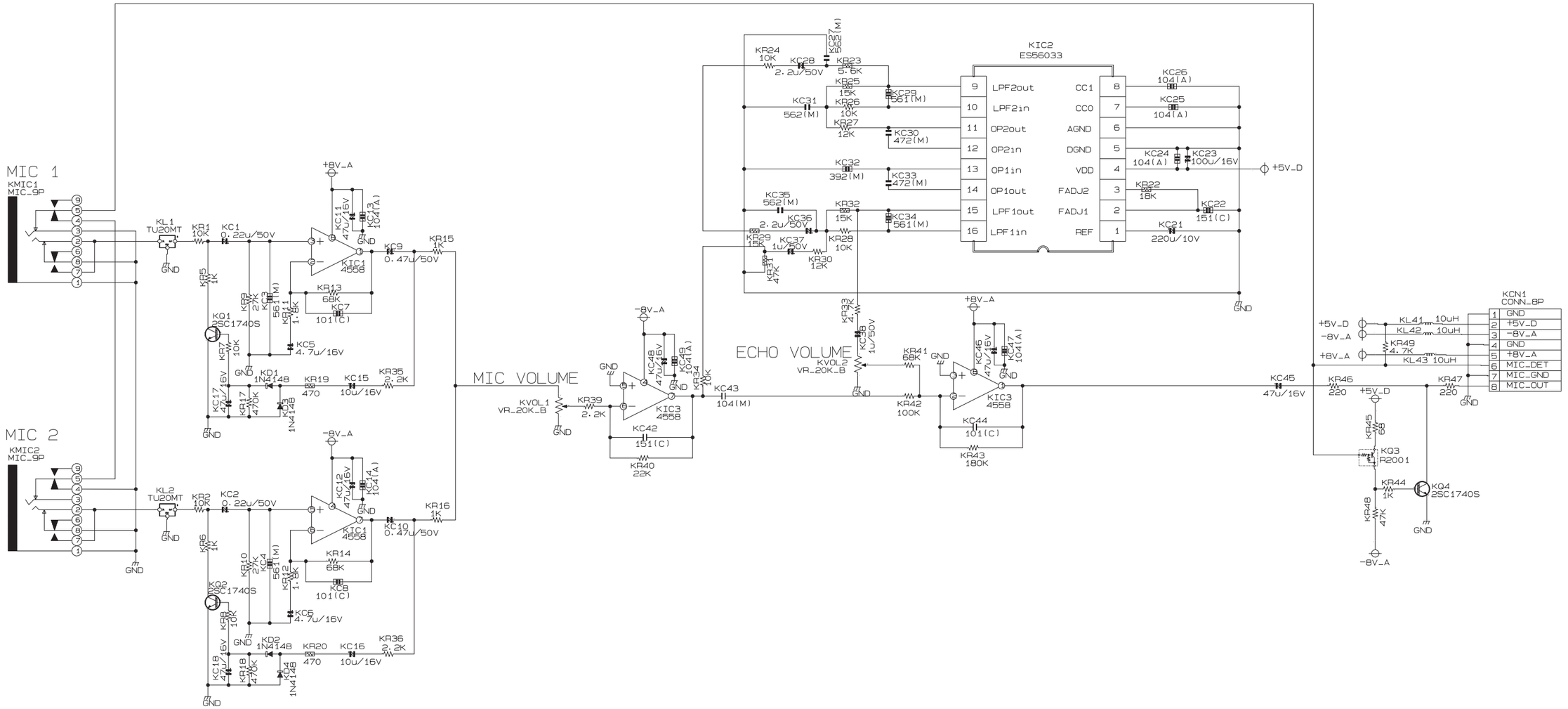

DVD-907K/DVD-9901A Only
MICOM
/NTSC
/PAL
/SECAM
MRST
SCL
SDA
DATA PROCESSOR
27M_B
A/V DECODER
VSYNC
HSYNC
VDATA7
VDATA6
VDATA5
VDATA4
VDATA3
VDATA2
VDATA1
VDATA0
VIC1
SAA7128
+5D
+3.3D
GNDB
GNDB_AU
-8VID
8VID
8V
-8V
VF1
K5189
VF2
K5189
VJ1
RCA5PIN
VIDEO-CVBS2
VIDEO-CVBS1
VIDEO-BLUE
VIDEO-RED
VIDEO-GREEN
VJ2
JACK-SUPER
VIDEO-YC
YPrPb

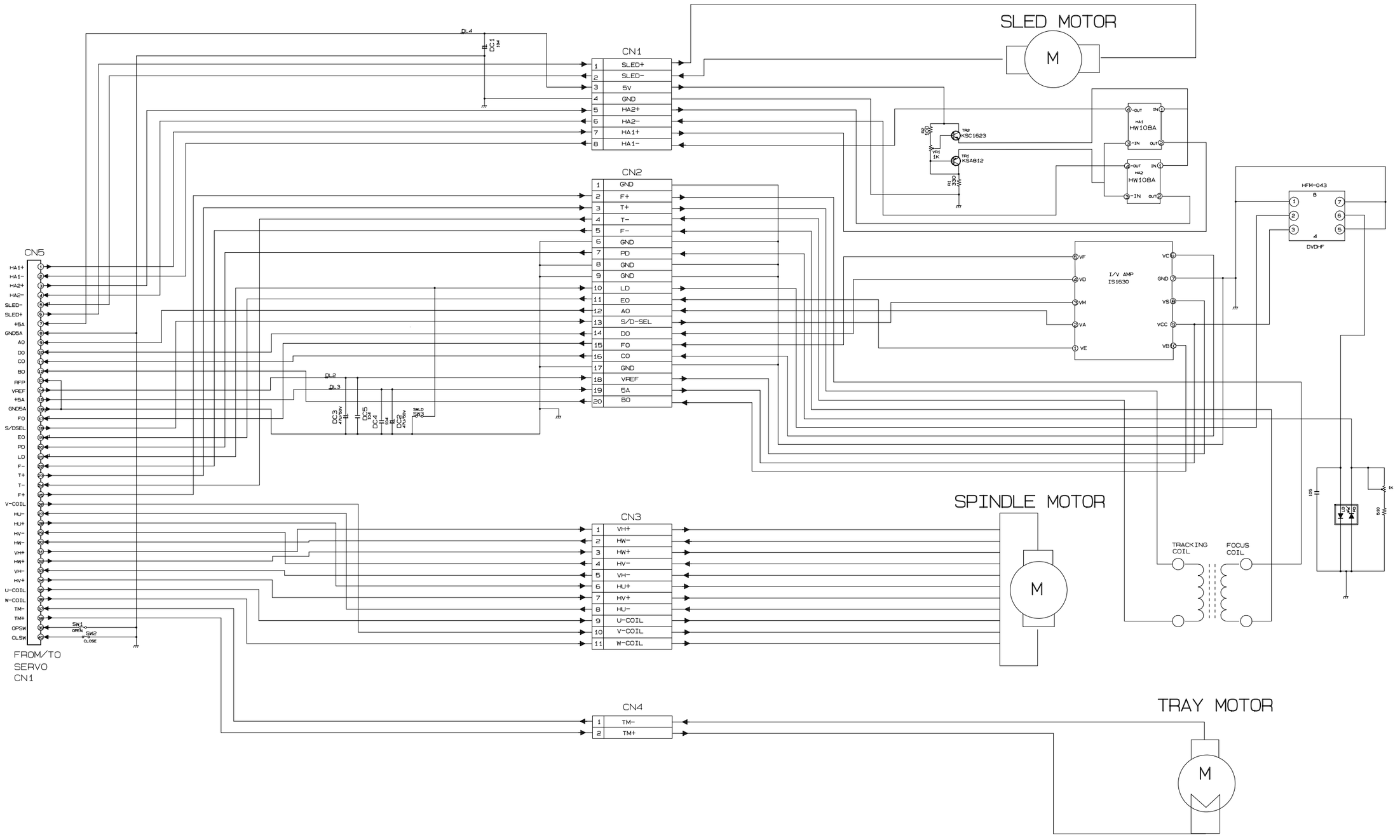
15-1-7 CONNECTOR




FIC3
SVA-11MM08
FJP1
HEADER-28P
FIC1
LC86P6232
QFP-100P
FIC2
KA7545
FIC4
REM_EYE
FIC5
OPEN
FSW7S TACT POWER
FSW8 TACT MENU
FSW4 TACT PLAY
FSW5 TACT REV
FSW6 TACT FF
FSW1 TACT STOP
FSW2 TACT OPEN
FSW3 TACT ENTER
+5V_AL
GNDD
POWER
SRQ
RRQ
TXD
RXD
SCLK
RST
MUTE0
M_DET
M_MUTE
MUTE1
WIDE
NOR
MUTE2
ON/OFF


NOTE : IF YOU CHECK THE VOLTAGE FOR PARTS IN HOT CIRCUIT. YOU MUST USE PRIMARY GND AS A COMMON TERMINAL
IMPORTANT SAFETY NOTICE
COMPONENT IDENTIFIED WITH THE MARK HAVE THE SPECAL CHARATERISTICS FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENT. USE ONLY THE SAME TYPE.
HOT
PT1
EE2821-DVD-907 /927
PCN2
1 -8V ANALOG
2 GND8V
3 8V ANALOG
4 GND+8V
5 +8V MOTOR
6 ON/OFF
7 GND5A
8 +5A
9 GNDD
10 +5D
11 5V-AL
12 GNDD
13 +3.3D
14 GND5A
15 PMUTE 11V
16 F+ 3.3V
17 FL -28V
18 F- 3.3V
PC03 100UF/400V
PR10 2.7(2W)
PD01 PD02 PD03 PD04 139-600
PC02 104/275V
PL02 30mH
PC01 104/275V
PVA01 SVC471D
PL01 400UH
PC10 .V
PC11 101/400V
PF01 1.6A 250V /1.6A 250V
PR1 1.8M(1/2W)
AMERICA OPTION
PCN01
PR11 33K(1/4W)
PR12 33K(1/4W)
PR13 33K(1/4W)
PR14 33K(1/4W)
PR15 33K/2W
PR16 33K/2W
PC04 103/630V
PD11 EG01C
PC05 100PF/1KV
PR17 100/2W
BEAD PL11
PIC1 DRAIN VCC 1LO380 GND F/B
PD12 153-400
PR18 47
PZD11 18C
PC06 22UF/50V
PC07 104
PZD12 4.7B
PC08 2.2UF/50V
PC09 223
PC12 222/400V
PC13 222/400V
BL03 BEAD
PIC2 PC817
PR36 1.2K
PR37 1K
PC44 104
PIC3 S431C
PR38 3K/F
PR39 2.2K/F
PIC4 7908 IN OUT GND
PC38 47UF/25V
PIC5 7808 IN OUT GND
PC39 330UF/16V
PL37 10UH
PC40 47UF/25V
PD31 153-400
PC31 330UF/25V
PD32 RL10Z
PC32 1000UF/25V
PQ21 R2001
PQ22 R1003
PR32 1K
PD37 1N4002
PC41 1UF/50V
PQ23 D2395
PD24 D2395
PR31 220(1/4W)
PZD31 4.7B
PC51 1UF/50V
PC42 47UF/25V
PD38 414B
PC43 47UF/25V
FMLM02S
PD33
PC33 1000UF/25V
PL34 10UH
PC34 470UF/16V
PD34 FMLM02S
PC35 470UF/16V
PD35 153-400
PD36 153-400
PC37 330UF/25V
PR34 10HM
PC36 100UF/50V
PIC6 PQ03RF11 IN OUT FBC PWR CTL GND
PR33 1K
PR35 150


MIC 1
KMIC1
MIC_9P
KL1
TU20MT
KR1
10K
KC1
0.22u/50V
KR5
1K
KR9
27K
KC9
561(M)
KR11
1.8K
KC7
101(C)
KR13
68K
KC11
47u/16V
KC13
104(A)
KIC1
4558
KC9
0.47u/50V
KR15
1K
KQ1
2SC1740S
KR7
10K
KC5
4.7u/16V
KD1
1N4148
KR19
470
KC15
10u/16V
KR35
2.2K
KC17
47u/16V
KR17
470K
KD3
1N4148
MIC 2
KMIC2
MIC_9P
KL2
TU20MT
KR2
10K
KC2
0.22u/50V
KR6
1K
KR10
27K
KC10
561(M)
KR12
1.8K
KC8
101(C)
KR14
68K
KC12
47u/16V
KC14
104(A)
KIC1
4558
KC10
0.47u/50V
KR16
1K
KQ2
2SC1740S
KR8
10K
KC6
4.7u/16V
KD2
1N4148
KR20
470
KC16
10u/16V
KR36
2.2K
KC18
47u/16V
KR18
470K
KD4
1N4148
+8V_A
-8V_A
GND
MIC VOLUME
KVOL1
VR_20K_B
KR39
2.2K
KIC3
4558
KC42
151(C)
KR40
22K
KC43
104(M)
KIC2
ES56033
KR24
10K
KC28
2.2u/50V
KC27
562(M)
KR23
5.6K
KR25
15K
KR26
10K
KR27
12K
KC29
561(M)
KC31
562(M)
KC30
472(M)
KC32
392(M)
KC33
472(M)
KC35
562(M)
KC36
2.2u/50V
KR29
15K
KC37
1u/50V
KR30
12K
KR31
47K
KR32
15K
KR28
10K
KC34
561(M)
LPF2out
LPF2in
OP2out
OP2in
OP1in
OP1out
LPF1out
LPF1in
CC1
CC0
AGND
DGND
VDD
FADJ2
FADJ1
REF
KC26
104(A)
KC25
104(A)
KC24
104(A)
KC23
100u/16V
KR22
18K
KC22
151(C)
KC21
220u/10V
+5V_D
ECHO VOLUME
KVOL2
VR_20K_B
KR33
47K
KC35
1u/50V
KR41
68K
KR42
100K
KC45
47u/16V
KC46
47u/16V
KC47
104(A)
KC44
101(C)
KR43
180K
KIC3
4558
KR46
220
KR47
220
KR45
68
KQ3
A2001
KR44
1K
KQ4
2SC1740S
KR48
47K
KL41
10uH
KL42
10uH
KL43
10uH
KR49
4.7K
KCN1
CONN_8P
1 GND
2 +5V_D
3 -8V_A
4 GND
5 +8V_A
6 MIC_DET
7 MIC_GND
8 MIC_OUT


SLED MOTOR
M
CN1
1 SLED+
2 SLED-
3 5V
4 GND
5 HA2+
6 HA2-
7 HA1+
8 HA1-
CN2
1 GND
2 F+
3 T+
4 T-
5 F-
6 GND
7 PD
8 GND
9 GND
10 LD
11 EO
12 AO
13 S/D-SEL
14 DO
15 FO
16 CO
17 GND
18 VREF
19 5A
20 BO
CN5
HA1+
HA1-
HA2+
HA2-
SLED-
SLED+
+5A
GND5A
AO
DO
CO
BO
RFP
VREF
+5A
GND5A
FO
S/DSEL
EO
PD
LD
F-
T+
T-
F+
V-COIL
HU-
HU+
HV-
HW-
VH+
HW+
VH-
HV+
U-COIL
W-COIL
TM-
TM+
OPSW
CLSW
SW1 OPEN
SW2 CLOSE
FROM/TO SERVO CN1
TR2 KSC1623
TR1 KSA812
VR1 1K
HA1 HW108A
HA2 HW108A
I/V AMP IS1630
VF
VD
VM
VA
VE
VC
GND
VS
VCC
VB
HFM-043
DVDHF
CN3
1 VH+
2 HW-
3 HW+
4 HV-
5 VH-
6 HU+
7 HV+
8 HU-
9 U-COIL
10 V-COIL
11 W-COIL
SPINDLE MOTOR
M
TRACKING COIL
FOCUS COIL
CN4
1 TM-
2 TM+
TRAY MOTOR
M